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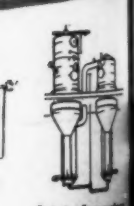

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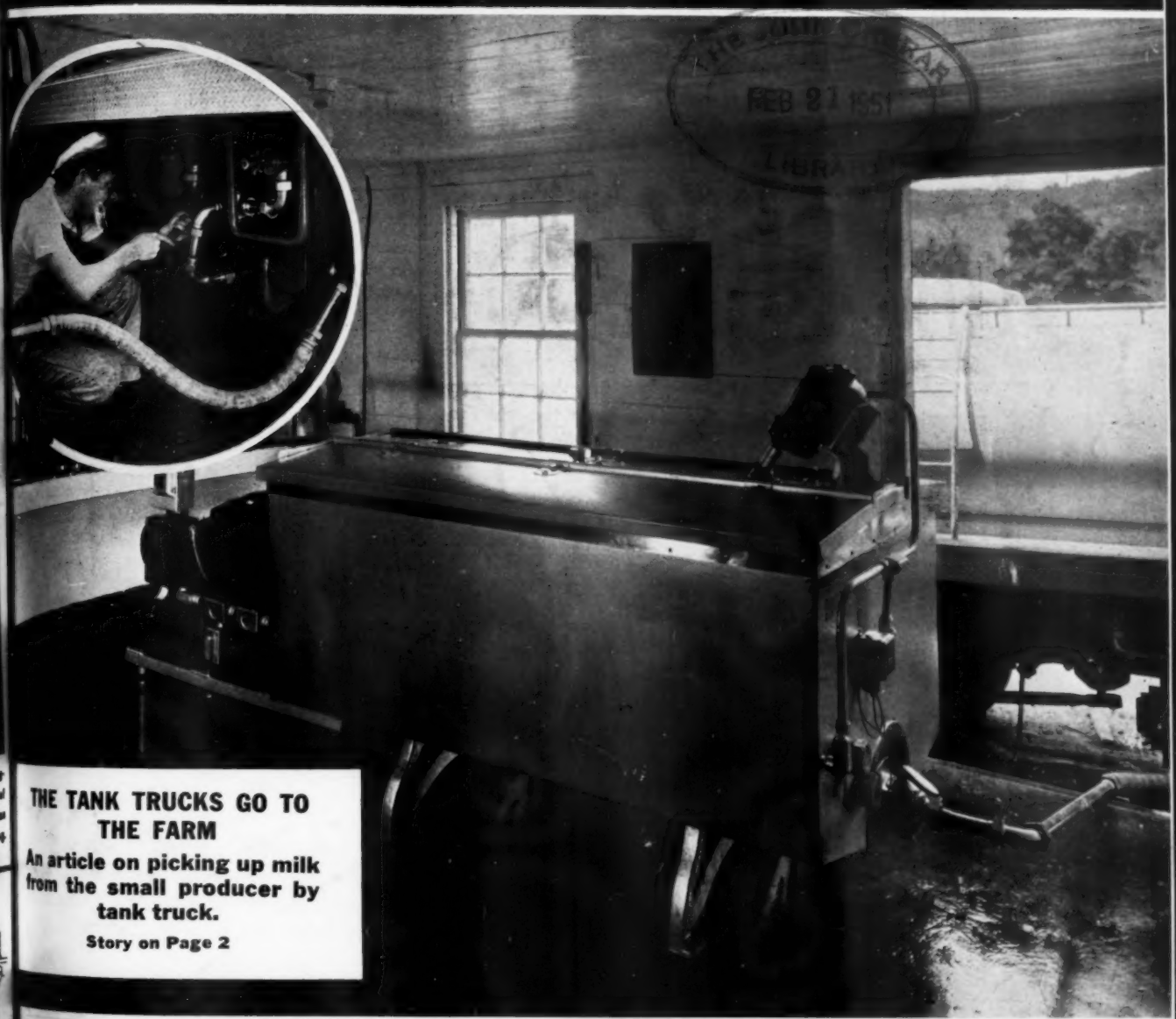
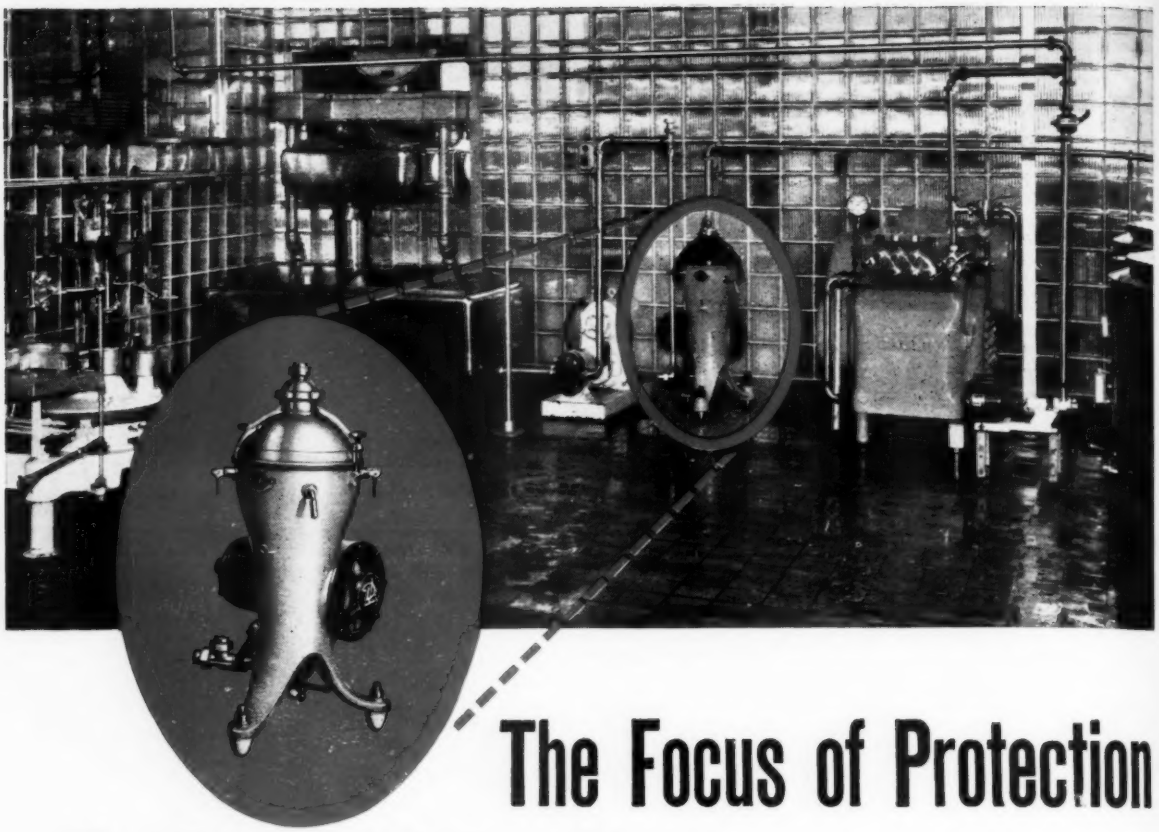


THE TANK TRUCKS GO TO THE FARM

An article on picking up milk from the small producer by tank truck.

Story on Page 2

PHOTOGRAPH BY MEYERS STUDI



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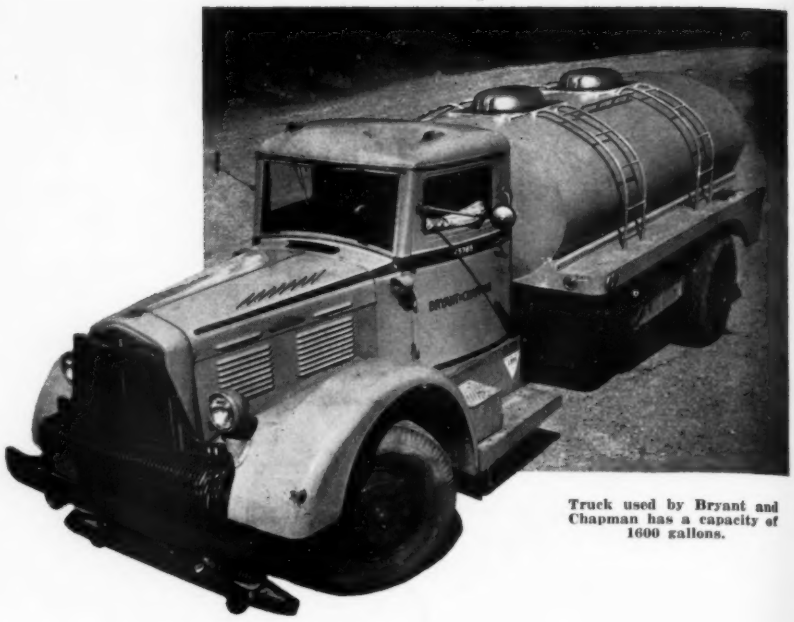
THE TANK TRUCKS GO TO THE FARM



Truck used by Bryant and Chapman has a capacity of 1600 gallons.

By
NORMAN MYRICK

THERE IS IN eastern New York State, between the green humps of the western Berkshire Hills and the lordly grandeur of the Hudson River, a section of rolling dairy country where the Holstein is queen and milk trucks rule the highway. It is known as the Harlem River Valley.

Famous as one of the richest and most concentrated dairy sections of the country, the Valley is today the scene of a revolutionary experiment in milk handling.

The experiment is a test of the practicality of picking up milk by tank truck direct from farm to plant. On the surface the project does not sound particularly startling. The practice has been carried on in California for some time. The difference between the Harlem Valley tests and the California operation lies in the size of the farms. There is a vast difference between picking up milk from a 1400 cow herd and picking up the milk from a 40 cow herd.

Although the experiment in the Harlem Valley is still in its infancy, the results have been so remarkable that it is difficult to be anything less than enthusiastic.

The scheme is a development of Bryant and Chapman Dairy of Hartford, Connecticut. The project was discussed in 1940 but, due to the war, was held in abeyance until the end of hostilities.

System Basically Simple

Like all great ideas the system is essentially a simple one. A stainless steel

Compact nature of holding tank is well illustrated by this picture. Note tank truck and pump just outside the door.

Milk is measured by a metal measuring rod calibrated for each individual tank. Reading is always taken from the same place in the tank.

holding tank of two hundred or three hundred gallon capacity is installed in the milk room at the farm. After the tank has been sterilized with a chlorine solution, milk is poured directly from the milking machine pails into strainers mounted on the tank. From the strainers the milk runs over a direct expansion surface cooler mounted inside of the holding tank. The ideal of immediate cooling is realized by this procedure. The milk is cooled from a high of 95 degrees to between 38 and 40 degrees in a matter of five to ten minutes. Emerson Sartain, Bryant and Chapman Field Supervisor, says that the goal is to bring the milk down to 38 degrees in five minutes.

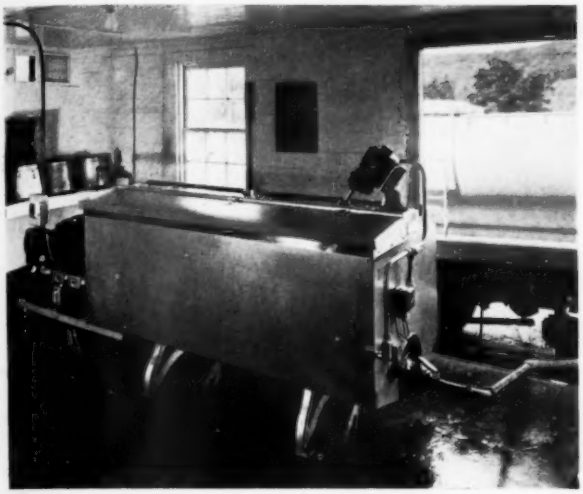
Incorporated in the tank, along with the direct expansion surface cooler, is an agitator. The agitator is synchronized with the compressor and operates either automatically or manually. When the driver, who is a licensed weigher and sampler, comes to pick up the milk he turns on the agitator for a minute or two before taking samples for butterfat tests and bacteria count. Some adjustments have been necessary in order to get the agitator in the right position and at the right speed to do a proper job of circulating the milk for cooling.

Electric motors mounted on one end of the holding tank provide power for refrigeration and for operating the agitator. When questioned regarding the expense of these motors, the producers, who are without doubt the most enthusiastic group involved in the experiment, said that they do not cost as much initially, nor do they cost as much to operate, as an electric cooler for an ordinary cooling tank.

Producer's Work Is Reduced

The producer's work is practically cut in half by this method of handling milk. He milks his cows, weighs the milk if he cares to, pours the milk into the strainer, and, after the milk is pumped into the tank truck, he washes out the tank. The time required for washing averages around fifteen minutes a day although the writer held a watch on one producer who did the job in ten minutes and argued about the price of milk at the same time.

The loading operation, beginning when the truck reaches the farm and ending when the truck is ready to leave, requires approximately twenty minutes. This time may vary a little with the amount of milk to be handled. It is expected that the time will be reduced



Good housekeeping in the milk room is an important by-product of tank truck operations. This room was formerly filled with cooling tanks.

Bryant and Chapman officials propose to protect the pump on the truck with a sealed-in cover.

Samples, taken by the truck driver, who is a licensed weigher and sampler, are stored in this ice box located underneath the truck.

Milk is filtered directly from the milking machine pails into the holding tank where it flows over a direct expansion surface cooler.

Cleaning the holding tank after the milk is pumped out does not present much of a problem. This producer gave tank a thorough scrubbing and rinsing in twelve minutes.

as the "bugs" are worked out of the system.

The truck used in the Bryant and Chapman tests is an ordinary 1600 gallon, insulated tank. There are two compartments in the truck and milk can be transported from the Harlem Valley to Hartford, a distance of about 60 miles, with hardly any variation in temperature. According to records maintained in connection with the experiment there is a variation in temperature of ½ of 1 degree.

Mounted on the side of the truck and fastened to the frame is the pumping unit. The equipment is compact and, save for a slight rearrangement of one section of piping that is needed, is doing a satisfactory job. Health authorities have cooperated in the new undertaking and have approached the idea with open minds. There was some question, however, concerning the sanitary qualities of a pump mounted so low on the side of a truck. So far the concern has proved to be unwarranted but the Bryant and Chapman people propose to remove all doubt by enclosing the pumping unit in an insulated, sealed compartment.

The actual loading procedure is the essence of simplicity, a characteristic of the entire operation. The driver backs his truck along side the milk house. He takes a calibrated metal measuring stick, custom made for the particular tank in which it is used, and measures the amount of milk in the tank. This is the reading on which the producer gets paid. Following the measurement of the milk the agitator is turned on before the driver takes his butterfat and bacteria samples. The butterfat samples are taken each day, the bacteria samples once a week. The butterfat sample is put into the usual composite bottle and the bacteria sample into a test tube. The producer's name and number are written on the bottle and the samples are then placed in an ice box attached just forward of the pump.

Sterilizes Coupling

While the agitator is running and the driver is waiting for the milk to be thoroughly mixed before taking the samples, he sterilizes the coupling pipe and rubber hose in a chlorine solution. His next step is to make the couple between the truck and the holding tank. In spite of the complicated picture that sampling, measuring and coupling makes, it is in reality a simple operation and utilizes the driver's time effectively while the milk is being agitated.

The coupling consists of a stainless steel pipe that extends from the tank through an opening in the milk house to a point about four feet from the pump. The distance from the pipe to the pump is spanned by a short length of standard brewers' hose. By the time the couple is made the milk is ready for sampling. Once the samples are taken the driver engages the pump mechanism, which derives its power from the truck engine, and transfers the milk from the holding tank to the truck. A supply of paper washers is kept at each farm for sealing the joints of the coupling. The pumping time varies with the amount of milk but the average time was not more than five minutes. After he has uncoupled, the driver rinses out the hose and pipe and is ready to move on to the next stop.

The actual time consumed in the loading operation does not represent any saving over the loading time of a can operation. From the truck driver's point of view, however, the heavy work of lifting loaded cans from the cooler to the truck is eliminated. Leo Gould, who drives the Bryant and Chapman truck, grinned a wide grin when asked about his reaction to the system and murmured a few sympathetic words for the less fortunate gentlemen who drive the trucks that pick up cans. There was no mistake about his feelings concerning the new system. He likes it.

Bryant and Chapman officials are not completely satisfied with the coupling arrangements as they now exist. While they are working out well from a sanitary angle and certainly do not bring the loading time appreciably beyond that required for loading cans, both men feel that there is room for improvement in this phase of the system.

The rubber hose that is used in the pumping operation receives the same sanitary treatment that is given the hose

(Please Turn to Page 76)

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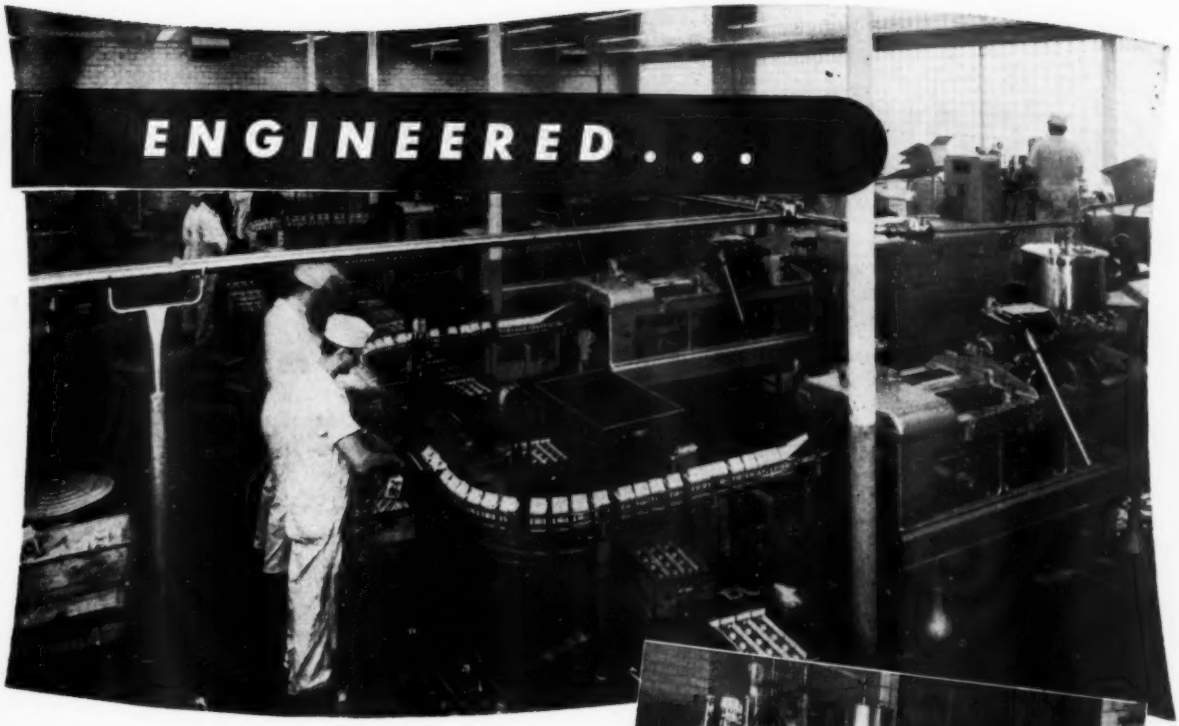

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The GOVERNMENT INVESTIGATES

Six Major Markets Are under the Scrutiny of Uncle Sam's Department of Justice as Inflation Breeds Consumer Unrest

***By* NORMAN MYRICK**

IT IS OPEN SEASON on the dairy industry. From one end of the nation to the other Federal officials, State officials, city officials, newspaper editors, health officials, consumer groups, and plain John Citizen have oiled up their shooting irons and are peppering the nation's number one food industry with about as heavy a dose of investigations and indictments as the business has experienced in many a moon.

Although milk handlers have long since become accustomed to the "goldfish bowl" character of their industry, the current flurry of activity on the investigational firing line has resulted in a barrage of probes and editorial concussions little short of magnificent in their legal trappings. Grand Juries have been passing out indictments like campaign buttons; Editors have "pointed with pride" and "viewed with alarm." Consumer groups have "moaned and groaned like boa constrictors," as the Pitchman says. Meanwhile the cow bovulation has continued to decline, the human population has continued to increase, and the inexhorable laws of supply and demand have worked their well known way with the price of milk.

New York to California

A description of the battle line sounds like a grand tour of eastern United States with a few spots further west thrown in for good measure. Chicago—Federal investigation, St. Louis—Federal investigation, Chattanooga—Federal investigation, Louisville—Federal investigation, Washington, D. C.—Federal investigation, Cincinnati—Federal investigation, New York City and milkshed—City investigation, State investigation, and Market Administrator's investigation plus a pious hope that, here too, the proud thunder of a Federal investigation will bring forth milk at a nice cheap price where there was no milk before. In New York also, a Market Administrator's Committee is studying the question of a new formula. In Philadelphia another committee is studying another formula. In Boston a formula has been studied, recommended, adopted, and put into operation. In California the formula has been suspended and the editor of the Fresno Bee observes that, "the outlook is quite promising for California, barring the possibility of trends which might encourage producers to send their animals to the slaughter houses."

The big gun in this Battle of the Udder (or should we say Bulge) is the United States Department of Justice and the ammunition is labeled Sherman Anti-Trust Act. To date the Department has labored mightily to bring forth mountains but has yet to conceive more than a couple of bothersome mice.

S. W. TATOR RETIRES

Samuel W. Tator, Director of the Dairy Branch, Production and Marketing Administration, is retiring from Government service, PMA Administrator Ralph S. Trigg announced recently.

Mr. Tator, who has headed the Dairy Branch since April 1946, has been on an extended leave of absence because of his health. Herbert L. Forest, who has been Acting Director of the Branch during Mr. Tator's absence, will continue to serve as Acting Director.

Before his appointment as Director of the PMA Dairy Branch, Mr. Tator served for 13 years as Federal Milk Administrator for the Boston and other New England market areas. He was at one time on the faculty of the University of Pennsylvania. Mr. Tator is the President of the Junior College of Commerce, New Haven, Conn.

In fairness to the Department of Justice, into whose hands is given the responsibility of enforcing the laws of the land, it should be pointed out that the Department's actions are without malice and entered upon in the line of duty. The Department acts when complaints reach such proportions that to ignore them would be a deriliction.

Start with Complaints

Federal investigations of the fluid milk industry follow a regular pattern. The first part of the pattern is the accumulation of complaints. Any law enforcement agency is the recipient of complaints from all manner of citizens. Most of the complaints, though read and evaluated, do not cause any great commotion. When complaints on the same subjects from the same locality suddenly mushroom into a substantial volume then the foundation is laid for a federal investigation. Complaints may come and complaints may go but when they begin to come all at once with a fair degree of similarity the Department of Justice acts.

Once the complaints have materialized the next step is to investigate. Theoretically the Department of Justice investigators are open minded at this point. They have a batch of complaints about the price of milk in a particular locality. The task is to investigate the activities of milk dealers in this locality and ascertain whether or not there has been any violation of the law.

To the milk dealer this is a particularly onerous process. A favorite practice of investigators is to request records. In the case of the Washington, D. C. investigations, records going back to 1930 were requested. Mr. B. B. Derrick, Secretary-treasurer of the Maryland-Virginia Milk Producers Association, said that he and his staff had to work seven days a week for several weeks in order to dig out the necessary data. It was reported that more than a ton of documents were involved in the Chicago explorations. On top of this, of course, milk handlers must appear before investigators and describe the activities of their organization.

Enter the Grand Jury

After the investigation has progressed to the proper point a Grand Jury may or may not be called, depending upon what has been turned up by the investigators. If the Department of Justice believes the complaints have been justified and the law violated a Grand Jury is convened to hear the evidence. If the investigation does not reveal any justification for carrying the action further the case is dropped, the records go back into the archives, a report is filed, and thanks very much for your cooperation.

The job of a grand jury is to hear the results of the investigation and decide whether or not the evidence is of such nature as to warrant a trial. The

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Grand Jury does not decide the guilt or innocence of the parties concerned, it decides whether or not there are grounds for believing that the law has been broken. If the Grand Jury so decides the individuals or companies involved in the case are indicted and charged by the Grand Jury with specific violations.

An indictment is worded in a manner sufficiently ferocious to cause honest milk to curdle. A milk company suddenly finds that it is a "defendant" and that it is taking on no less an antagonist than the United States of America. The United States of America vs. Clear Water Dairy is the way the indictments begin. Inasmuch as numerous armies and navies of divers deluded nations have taken on the United States of America in the past, with consistently disastrous results, an ordinary milk dealer is certainly to be pardoned if he gulps a time or two when the indictment is handed down before thumbing through the law books. Uncle can be a very tough guy at times.

Indictment Charges Conspiracy

The indictment goes on to say that "The Grand Jury charges" the defendants, who are described in detail, with a "conspiracy." The conspiracy charge is based on Section 1 or Section 3 of the Sherman Anti-Trust Act. These sections declare that every contract and combination in restraint of trade made in a locality that is subject to the laws of the United States is illegal. Furthermore the section states that any person convicted of such an act is guilty of a misdemeanor and subject to a $5000.00 fine or a year in jail or both.

Once the indictment is handed down the battle, for it is no longer an investigation, goes before a Federal court. The Government, through its lawyers from the Department of Justice, presents its case and the milk handler through his lawyer or lawyers, presents his case. The court then decides, guilty or not guilty, and dismisses the case or metes out a sentence as the case may be. These anti-trust actions are criminal cases and if an individual is indicted and found guilty the court can and will put him behind bars. There is more to a Federal investigation than a chance to get mad; there is always the possibility of ending up in jail.

Of the six milk market investigations now in the public mind, all but one deal with charges of conspiracies to fix prices. For example, eight Louisville milk companies and seven Louisville handlers were indicted by a Federal Grand Jury in June. The indictment charged "Beginning in or about the month of June, 1936 and continuously thereafter, up to and including the date of the presentation of this indictment, all the defendants knowingly have entered into and engaged in a combination and conspiracy unreasonably to raise, fix, and maintain prices of milk produced in the States of Indiana and Kentucky and sold by defendant handlers in the Louisville area, which combination and conspiracy in fact has been and is now in restraint of the hereinbefore described trade and commerce in milk among the several States in violation of Section 1 of the Acts of Congress of July 2, 1890 (U.S.C. Title 15, Sec. 1) commonly known as the Sherman Act."

As It was in Louisville

The conspiracy, the Grand Jury charged, consisted of a "continuing agreement and concert of action among the defendants." The specific character of the agreement and the action were set forth in the indictment. The terms of the agreement, the Grand Jury declared were:

"(a) That the defendants meet and confer from time to time with one another and with other handlers of milk at the offices of Milk for Health, Incorporated; Brown Hotel; Pendennis Club, and at other places to the Grand Jury unknown, concerning prices charged and to be charged for milk;

"(b) That the defendants agree upon and fix the prices at which defendant handlers sell milk;

"(c) That defendant handlers adhere to said agreed upon prices in selling and distributing milk;

"(d) That defendants persuade, induce, and influence non-defendant handlers to adhere to the prices so agreed upon and fixed;

"(e) That defendants advise and inform handlers not present at the aforesaid meetings concerning the said prices agreed upon and fixed;

"(f) That defendants discuss and agree upon prices for milk to be included in bids submitted to institutions and governmental agencies, Municipal, State, and Federal;

"(g) That defendant handlers adhere to said agreed upon prices in bids submitted by them to said institutions and governmental agencies."

The above quotation is taken verbatum from the indictment. In order to form and effectuate the alleged conspiracy, the Grand Jury listed nine price changes in the Louisville market, which, they declared, were part of the agreements.

"(a) On or about July 9, 1946, the defendants agreed to and fixed a price

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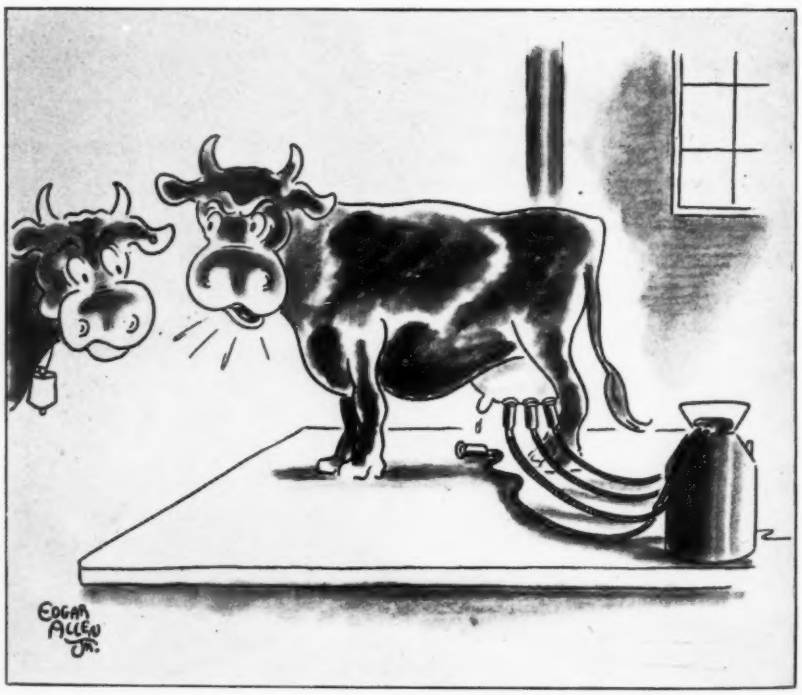
Dairy Daze

By Edgar Allen, Jr.



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TEMPEST IN NEW YORK

Opposition to Price Increase in New York Follows Familiar Pattern — Mayor Launches Probe as Consumers Present Amazing Arguments

By **HUGH ROBINSON**

PRICE INCREASES SOUGHT BY the producers supplying the New York Metropolitan market stirred up a hornets nest of opposition among consumers. Seeking a 44 cent rise for July and August and an additional 44 cents in the fall, producers have the support of the New York handlers.

Opposition to the proposed price increase was voiced by consumer groups and city officials at a hearing held June 14. The unprecedented appearance of Health Commissioner Harry S. Mustard and pressure from consumer groups prompted Mayor O'Dwyer to order another investigation of milk prices in New York City.

The investigation is under the direction of Investigations Commissioner Murtagh who will submit a report to the Mayor upon completion of the investigation.

Commissioner Murtagh asked all the New York dealers to submit for his inspection company records covering their costs and prices for the last fiscal year. Most of the companies have voluntarily agreed to this even though submitting their books at this time has been inconvenient in many cases.

When the report has been placed on the Mayor's desk it is only a matter of conjecture what he will do with it but it is assumed that he will turn it over to Health Commissioner Mustard to use in his fight against the increase.

The Commissioner's report is in no way an official document to the Federal government and can only be regarded by the Market Administrator as any other evidence presented at the hearings would be regarded.

The Market Administrator made it clear that he would have to be officially unaware of the city's investigation unless presented as evidence at the hearings.

Another city official engaged in the fight is Superintendent of Schools William Jansen who actively entered when he said that any increase in price would deprive children of school age of the proper amount of milk.

Consumers Present Old Theory

Consumer groups stress the theory that to increase the price of milk by-products would be better than a rise in fluid milk prices. This was brought forth at the hearing although the hearing was strictly limited to a proposed increase in class 1 prices.

The city's position in fighting the rise is, it will create a serious health problem by cutting the amount of milk consumed. Another charge of the consumers is that dealers are reaping enormous profits. Consumer groups argue that if an increase is really necessary the dealers can well absorb it without an increase in the retail price of milk.

In reply to a statement issued by the producers that fluid milk prices in Boston and other markets were were much higher than those in New York, Health Commissioner Mustard

No Milk for these...

Unless leaping milk prices are stopped!

". . . the higher the price, the fewer children can get milk."

Dr. HARRY S. MUSTARD, N.Y.C. Commissioner of Health

MILK PRICES HAVE DOUBLED SINCE 1940!

1940 . . . 11¢
1942 . . . 13¢
1946 . . . 14¢
1947 . . . 16¢
1948 . . . 22¢
1949 . . . ?

The N. Y. Times states: "Dairymen who supply the Metropolitan area are receiving the highest return on record. Nevertheless, five dairy groups are asking the equivalent of 1¢ a quart more on July 1, to be followed by a like advance on September 1."

PREVENT FURTHER INCREASES!

Buy three post cards. Jot down your protest, "Keep milk prices down." Mail the post cards to the following men:

Hon. C. F. BRANNON, Secy. of Agriculture
U. S. Dept. of Agriculture, Washington, D. C.
Governor THOMAS E. DEWEY, Albany, N. Y.
Hon. C. C. DuMOND, N. Y. State Commissioner of Agriculture & Markets, Albany, N. Y.

But act today. The final decision will probably be made within a week. The proposed price increase can be licked — with *action*.

This fight needs everybody's help: consumer groups, women's groups, church organizations, labor unions, manufacturers, retailers, advertising agencies.

Take Immediate Action!

This protest has been paid for by the employees of the

MAILOGRAPH COMPANY, INC.

39 WATER STREET NEW YORK 4, N. Y.

Direct Mail Advertising

We feel that the health of our children and those of the community are threatened by leaping milk prices.

STOP THE INFLATION SPIRAL. KEEP AMERICA HEALTHY.

The advertisement pictured above appeared in New York newspapers last month. This particular wail was paid for by employees of the Mailograph company but the figures and the message are typical of material that is being distributed by consumer groups in the city. Since the thunder began to roll it is alleged that about 500 retail milk distributors have cut their prices, in some cases as low as 18 cents.

Smith-Lee "CELLOPHANE" HOODS

with Smartly-Packaged DOUBLE PROTECTION

Start sales climbing by introducing the milk that's TWICE PROTECTED with a cap and a "Cellophane" Hood. These fresh, colorful, proven sales-makers DOUBLE customers' assurance of a safer, better milk.

NATIONALLY PROMOTED . . . NATIONALLY PREFERRED! Both housewives and health authorities prefer "Cellophane" packaging . . . nationally advertised, nationally recognized! "Cellophane" Hoods identify your dairy with the extras in protection. It's this kind of service that builds bigger routes and profits!

"CELLOPHANE" HOODS Save Manufacturers' PROFITS!

High-speed Smith-Lee Hooding Machines make and apply their own hoods in ONE operation. At the rate of 25 to 80 bottles per minute. YOU SAVE ON COST! "Cellophane" stores by the roll in minimum space enabling you to buy in quantity and save on discounts.

ONE ROLL HOODS
10,000 BOTTLES

FREE Advertising-Merchandising Helps

Smith-Lee helps you sell more milk by supplying a complete selling plan plus newspaper advertising mats and radio scripts.

FOR FULL INFORMATION, WRITE TODAY!

TWICE CAPPED—
TWICE PROTECTED
AT LOWEST COST PER BOTTLE

Smith-Lee
HOODS
PACKAGE YOUR MILK FOR GREATER PROFITS
CAP HEADQUARTERS
SMITH-LEE CO., INC. ONEIDA, N. Y.

said, "Washington made a mistake. Prices in Boston are too high."

Petitions Being Circulated

Consumers groups, in their effort to kill the increase, are circulating petitions to get the general support of the public. Spearheading the attacks is the New York City Consumer's Council. Their petition reads:

"TO: THE HONORABLE CHARLES F. BRANNON
Secretary of Agriculture

CONSUMERS VIGOROUSLY PROTEST THE UNJUSTIFIED INCREASE IN THE PRICE OF MILK. Because the price paid farmers for milk used in making cheese and other milk products is much too low, consumers are forced to pay exhorbitantly high prices for the fluid milk they drink in order to produce a satisfactory blended price to the farmer for all the milk he produces.

The farmer is victimized by the practices of dealers on the exchanges. Cheese made from milk priced according to the Federal Milk Marketing Order is being sold at a premium of six cents a pound above the Plymouth Cheese Exchange quotation which sets the price the farmer receives for his milk. Thus for every 100 pounds of milk used to make cheese, farmers are underpaid at least 50 cents—over a cent a quart.

We charge that the cheese exchange price is not an honest or reliable index for milk value.

We charge that the exchange and its pricing are frauds. If these frauds were eliminated the farmer would get an adequate price for his milk and the consumer would not be forced to pay increased prices for it.

Consumers demand that you act at once to end these frauds." 8

With what success the petitions are meeting is not known, but they have been given very wide circulation and will be sent to the Secretary of Agriculture. Newspaper advertising has been used by some of the groups to further incite the public to action against the increase.

Producers Present Facts

Testifying for the milk producers, Dr. L. C. Cunningham, agricultural economist at Cornell University, showed that for the average farmer the cost of producing 100 pounds of fluid milk was in excess of $5.00. In Dr. Cunningham's opinion an increase of $.44 would not be exorbitant. A survey of six metropolitan milk companies conducted by Dr. Leland Spencer of Cornell, last fall (*American Milk Review*, December 1947) placed the dealers profit at 1.3% of the retail dollar.

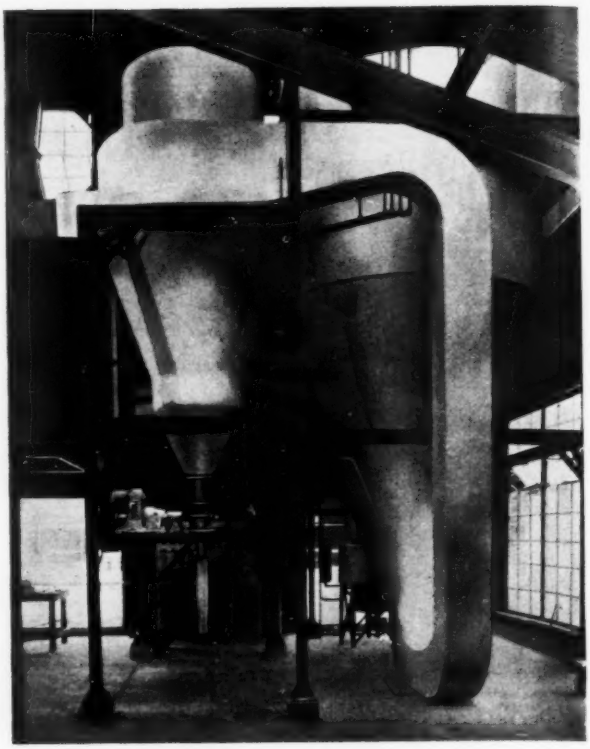
The New York hearing was heated and long. An evening session was necessary so that both sides could have an opportunity to present all the evidence.

The increase, if granted, would have taken effect on July 1, but at that time no decision had been reached. The producers were disgusted at the lack of action and their attitude was expressed by one of their leading spokesmen when he said, "producers can not and will not produce milk under present price rulings and if forced we will divert milk to some better market." This market would probably be Boston where prices are higher than those in New York.

Farmers Must Have Increase

Although producers feel a definite responsibility to the New York market, they are faced with producing milk at a loss or at best on very low profit margins. This, combined with the opening of the New York market to Western cream on August 15, has, according to producer spokesmen, brought dairy farmers to the point where they must either receive an increase or go out of business.

Spray Drier by Bowen



This picture of Bowen Engineering Corporation's new spray drier came across the editorial desk the other day. The study in light and shadow that the installation presents is in itself an invitation for further investigation. From a practical point of view, however, the equipment is something of a symbol of the rapid rise of dried milk as powerful factor in the dairy market place.

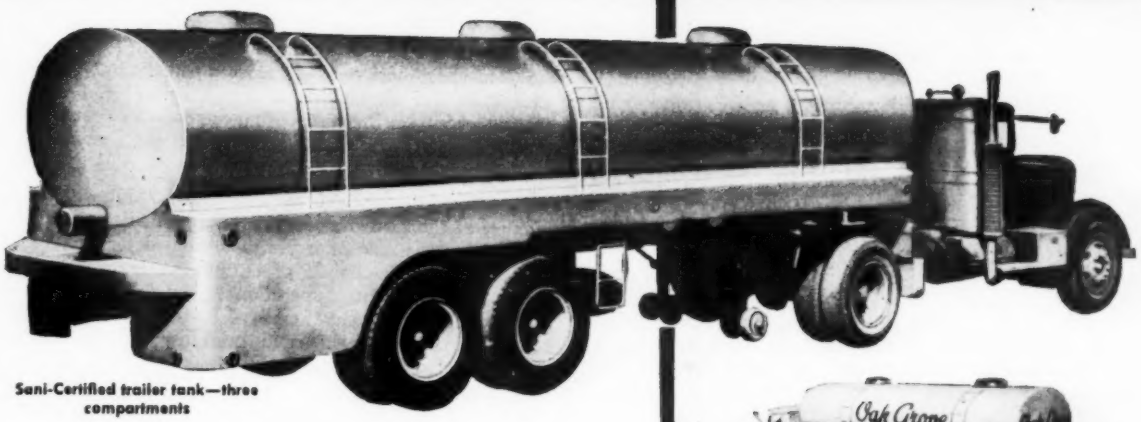
This particular dryer is capable of turning out from five to ten tons of product a day. It was originally conceived as a pilot plant but met with such a widespread demand that it was put into production schedules.

Dealer's, rapidly becoming resigned to their role as the most investigated industry doing business, have lined up with the producers in favor of an increase. It is maintained that such an increase will not add to the spread and that the only addition to the retail price of milk will be the increase granted to the producers. This retail increase would be approximately one cent in the summer and two cents in the slack period of the fall.

Dealers feel that they can not absorb this price rise because of their present extremely low profit margin. The consumers groups attack this. They say that while the margin may be low for fluid milk it is amply made up in other milk products. The consumer groups voice the rather remarkable theory that it is the duty of the dealers to sell milk at a price which is low enough for everyone to purchase even if it means that the milk is going at a loss.

Producers and dealers alike feel that if the price increase places milk out of the reach of some pocketbooks it is the duty of relief and welfare organizations to supply the difference. Since governmental subsidies have been removed, handlers must stand the entire cost of production and processing.

SANI Certified



Sani-Certified trailer tank—three compartments

STAINLESS STEEL LINED TRUCK AND TRAILER TANKS

Sani-Certified Milk Carriers give your products economical and sanitary transportation year after year.

Inner jackets of stainless steel provide the most sanitary lining a container can have. All welds are ground and polished to the level of the glass-smooth interior surface. Elimination of sharp corners saves many man-hours of clean-up time.

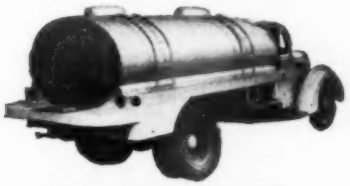
Sani-Certified Truck and Trailer Tanks are *custom-built* to meet your particular requirements, and they comply with state laws. Built in single or multiple compartments, trucks have a capacity range of 750 to 2000 gallons, trailers of 2000 to 4500 gallons.

Write for Bulletin No. 821A

Trailer tank—two compartments

Trailer tank—one compartment

Truck tank—one compartment



Truck tank—two compartments

1000 BERRY AVENUE ST. PAUL 4, MINN.
EASTERN SALES OFFICE: 724 FIFTH AVENUE, NEW YORK 19, NEW YORK

EDITORIALLY SPEAKING . .

Tank Truck Revolution

A FEW WEEKS AGO YOUR EDITOR had the opportunity to take a peek at the future. The occasion was a visit to the trial installations that Bryant and Chapman of Hartford, Connecticut, have placed on farms in connection with their attempt to adapt the tank truck pick-up system to the small producer. The technique has been in operation on the west coast, where extremely large herds have made it feasible, but to our knowledge this is the first time that it has been tried on producers making as little as 800 lbs. of milk a day.

The complete story of the experiment is told on other pages of this magazine but it is doubtful that the article catches the splendid, intangible features of what the Hartford concern is doing.

Two things stand out. One is the universal enthusiasm voiced by farmers who are using the tank truck system. The other is the superior quality of the product delivered at the plant.

There are several reasons for farmer enthusiasm. One is the fact that butterfat samples are taken under conditions that remove all possibility of argument. The truck driver takes the samples out of the holding tank *at the farm*. The producer can stand at the driver's elbow and watch. He can take samples himself, identical samples and have them tested as an irrefutable check if he wishes to do so. He *knows* what is being tested. There is no possible reason for a subsequent "beef" concerning the results of his butterfat test.

No less important is the method of measuring the amount of milk credited to the producer. Under the tank truck system the quantity of milk is measured at the farm while it is still *in the holding tank*. Again the possibility for dispute is removed. The milk is measured by means of a metal measuring stick calibrated for the particular tank in which it is used. The rod remains in the producer's milk house. He has the opportunity of observing the measurement of his milk whenever he wishes without any inconvenience. He knows what the weight is before the milk leaves his farm.

Possibly the factor that looms largest in the eyes of the producers is the money saved under the tank truck system. Shrinkage, the difference between the amount of milk that the cows on a given farm produce according to weighings at milking time and the amount credited to the farmer at the plant, are for all practical purposes eliminated. One of the Bryant and Chapman producers reported an annual saving of $1500.00 dollars on shrinkage alone. In addition, this man calculated, on the basis of his own records, that he saved another $800.00 on labor costs. Every one of the producers involved in the experiment reported substantial savings.

To your editor, there appeared to be still another reason for favorable producer reaction to the tank trucks. That was the matter of pride. It is difficult to describe the effect that the compact, gleaming, stainless steel holding tanks have on milk rooms. In one stroke, milk houses become more roomy, more adequate, easier to maintain, and a source of pride to the producer. The holding tank is a piece of equipment that marks the farmer as a man of substance. This is the thing he will show his visitors. This is the equipment that he will scrub and polish, not only because it is necessary to do so in order to produce good milk but because here is something of which he is inordinately proud. And, kind friends, when you have developed that state of mind among producers you have really done some developing.

But the enthusiasm is not all on the producer's side. Bryant and Chapman officials report a definitely superior product as a result of the rapid cooling and the stainless steel surfaces. Elimination or at least a substantial reduction on cans used and elimination of weighing and can washing are stirring prospects that are within the handler's grasp. Finally, the well nigh miraculous effect on relations between handler and producer is of itself enough to recommend the system.

Many dealers will ask, "Can the technique of tank truck pick-up at the farm be adapted to still smaller producers?" In our opinion the answer is yes. The final determination of this problem is in the hands of equipment manufacturers. The key to the tank truck operation is the holding tank in the producer's milk room. If manufacturers can build an economical tank for the very small producer then there is nothing to stop the tank truck system from sweeping the country.

If this should prove to be the case, and at this writing we can see no reason why such a situation should not come to pass, the impact upon the industry would be little short of revolutionary. Not only would it enable producers to put out a better product at lower cost; not only would it enable handlers to operate more efficiently and bring about a new era in producer-handler relations, but it would give to the milk drinking public a beverage better than anything that has tickled the collective palate up to this time. We do not think it fantastic to say that Mr. A. C. Fisher, General Manager of Bryant and Chapman, has uncovered a billion dollar idea; one that will take its place with the milk bottle and pasteurization as milestones in the evolution of the modern dairy industry.

•

Investigations Start Somewhere

"LIVING IN A GOLDFISH BOWL;" "The most investigated industry in the country;" these were comments made by dairymen to a Review reporter in the course of gathering material for stories on the current crop of investigations of the dairy industry.

The observations were not very wide of the mark. There are underway at the present time no less than six federal investigations. How many other State and local probes are making life merry for the dairyman is a matter of conjecture. As a possible index, however, one has only to look at the New York market where three investigations are going on at once. The State is investigating the milkshed; the Market Administrator is investigating the coops, and the city is investigating the handlers. An exceedingly interesting time is being had by all.

In one sense, the shower of investigations is something of a left handed compliment. Government examination of the industry points up far more eloquently than words the vital place that the milk business occupies in the public mind. Perhaps it is a compliment dairymen feel that they could do without, nevertheless, it is there.

The most revealing fact about these investigations particularly those of the Federal Government, is their origin.

Handi-Square wins by a landslide!

on a platform of 50% more space in trucks, coolers and cold rooms

"We homemakers vote 9-to-1 for square bottles for milk as compared with rounds!

"We can keep more milk on hand in Handi-Squares . . . they take so little space in our refrigerators. With more milk so handy, we use more, too. And glass is so clean . . . so *safe* for milk's delicate flavor! We can *see* when to order more."

"It's Handi-Squares for us dairymen!

"We add 50% to our storage capacity, *without added cost.* Three cases of Handi-Squares fit easily in the space previously needed for two cases of rounds. And our drivers welcome Handi-Squares' compact size, light weight and easy handling. Trucks can hold 50% more cases per load. Drivers have more *selling* time to develop their routes."

"We retailers vote for Handi-Squares, too!

"It's easier for us to sell milk in *glass* . . . our customers prefer it that way! With Handi-Squares, our refrigerators and self-serve coolers can hold up to 50% more bottles; we can sell more milk!"

"Put your name, trade mark or sales message right here, in economical Applied Color Lettering!"

Duraglas TRADE MARK REG. U.S. PAT. OFF. **HANDI-SQUARE BOTTLES**

OWENS-ILLINOIS GLASS COMPANY • Toledo 1, Ohio—*Branches in Principal Cities*

While it is true that the "hold the price line" policy of the present administration has resulted in a constant scrutiny of all industry, especially industries directly concerned with food, clothing, and shelter, the *American Milk Review* could find no evidence that the dairy industry had been singled out as a political whipping boy. The impetus that starts the Department of Justice off on an investigational tear is a bunching up of complaints.

Complaints are constantly reaching the Department of Justice during fair weather and foul. Some of them are the work of cranks, some of them are written by sound individuals who are convinced that they have a legitimate cause. It is, of course, impossible for the Justice people to act on all of the complaints. When, however, the complaints become concentrated; when a large volume of "beefs" comes from one locality, then the Department of Justice officials reason, and logically so it seem to us, that the situation calls for action.

In the case of each of the current Federal investigations the preliminary patterns were identical. The crop of complaints from Chicago, from St. Louis, from Chattanooga, reached sufficient volume to cause them to stand out. In each case the thing that caused the complaints to erupt was an actual or contemplated increase in the price of milk.

The core of this business is that the investigations which have nagged at the industry for so long that they have almost become an accepted industrial hazard, originate not with bureaucratic inquisitors, but in the minds of your own customers. The place to stop these investigations is on the milk routes where they start. You can write it down in the back of your dairyman's hat that without complaints from the people who buy milk there would be no investigations. You can also write down the profound conclusion that it is a lot cheaper and a lot better business to explain the price structure to your customers yourself than to have the newspaper boys and a Federal investigation do it for you.

●

Sterling Research Awards

THE EDITOR OF A TRADE paper is subjected to a daily barrage of letters, releases, and pleas from a wide variety of enterprises. The purpose of the communications is to spread the word of a particular product or a particular scheme. Ostensibly the information is dressed up to appear as news. In many cases, however, it is simply publicity which is, after all, a form of free advertising.

One of the editor's jobs is to sift these missives and print those worthy of the attention of the industry.

Among the many communications that have crossed the desk of your editor in recent days has been the story of the 1948 Awards of Merit for the quality improvement of Dairy products. This campaign is sponsored by the Sterling Research Corporation of Buffalo, New York, manufacturers of a mastitis testing device. The decision to print the story of these awards was not hard to make. In the first place it was news and in the second place it represented a contribution to a trend close to the life blood of the industry.

Quality control along with public relations are two of the newest and most vital developments in the dairy field. Indeed it is a little difficult to separate quality control from public relations. For after all just about the best public relations instrument a company has is its product. People are inclined to associate a quality product with a quality concern.

In its work of emphasizing quality control the Sterling Research Corporation is doing a service to the industry. Not long ago in another editorial, it was pointed out that salesmen were educators as well as salesmen. Here is another example of that fact. Manufacturing and selling mastitis detectors is not enough. It is necessary to sell the thing that the detectors do. This the Sterling people have been doing with encouraging results.

The American Milk Review extends its congratulations to the Deerfield Creamery Company and Arcade Farms Cooperative, winners of 1948 awards. We also extend our congratulations to sponsors of the campaign. Their's is a worthwhile work.

●

Dairymen Have A Case Too

GARDNER JACKSON, DESCRIBED as a fighting liberal, has an article in the July Atlantic Monthly, "Henry Wallace, A Divided Mind." In the course of the story the author describes the activity of milk handlers in opposition to the Wallace project of a decade and a half past. As usual the passage is not particularly complimentary to the industry.

Brickbats are no new experience to the dairy industry but it is a little startling to be reminded that even in the era of depression prices the milk dealer was still the villain. When prices are low the handler is supposed to be profiting at the expense of the farmer. When prices are high he is profiting, at the expense of the consumer. Despite the fact that more and better milk is distributed in this country than in any other nation on earth, the milk handler is still the villain.

In this month of August the storm clouds are piling up. The oleo battle in Congress can be counted upon to produce a respectable amount of unfortunate publicity. Prices continue to rise and investigations continue to flourish. Milk is short and there is no prospect of relief in the near future. The outlook is not good except for one thing. That one thing is the story that the fluid milk industry has to tell. That story is good.

Every day in the year milk is gathered from millions of farms, hauled to a milk plant, sterilized, processed, packaged in ultra-sanitary containers, refrigerated, and delivered to the ultimate consumer for about ten cents a pound. Every single day this remarkable pageant is enacted. Rain or shine, high water or low, prosperity or depression the milk trucks roll.

Milk dealers know this story. Milk dealers are familiar with the stainless steel equipment, the elaborate heating and refrigerating installations, the thousands of trucks, and the countless millions of containers. Milk dealers know what it takes in brains and skill and dollars to turn out a sound, nutritious bottle of milk. Milk dealers know all this, but consumers do not.

It seems to us that it is high time somebody said something nice about this largest industry. June Dairy Month activities point the way. There never will be a greater need for the telling of the dairy story than in the next twelve months. But what is more important, we doubt that there will ever be a much better story to tell.

●

How Do They Do It?

AS A RESULT of the investigational activities of the Commissioner of Investigations in New York City, a wave of price reduction among retail distributors has taken place. In some cases the reduction has gone as low as 18 cents which is just about what retailers are paying for milk.

This we cannot understand. We have not yet had an opportunity to investigate the situation with as much care as it demands. However, we cannot but feel that something is amiss. Either we have gone way out on a limb championing prices as just when they are not just, if retailers can honestly reduce them and still make a profit, or some retailers are trying to make some cheap hay at the expense of the industry. We hope that both conclusions are wrong but there is something in the wood pile somewhere.

You've got to hand it to these Mono packages because they're

DESIGNED TO SELL!

They're smart . . . eye-catching . . . eye-pleasing. They represent a few of our long list of satisfied customers who use Mono cups—and use them well.

If you want help in changing a "ho-hum" design into a striking, inviting package that sells itself, Continental's at your service. Whether you have a question about size, color, typography or trademark, let us hear from you.

Consult us about your packaging problems

CONTINENTAL CAN COMPANY

Paper Converting Division

HEAD OFFICE: 100 East 42nd Street, New York 17, N. Y.

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JAMES R. DOWNING

Portrait of a Dairyman

SOME TWO HUNDRED miles west of Chicago, where the Mississippi splits the rich midwestern prairie into Iowa and Illinois, Rock Island stands with her three sisters, to form the famous Quad cities. Located close to the heart of the largest dairy section in the world, the city is a compact dairy market in its own right.

The proximity of a splendid supply of good milk is one of the reasons for the pre-eminence of Rock Island as a market for dairy products. The prosperity of a strong and energetic population of four closely linked cities is another. Probably the outstanding reason, however, is the calibre of the men who hold the reins on the fluid milk business in the Quad cities. One of these men is James R. Downing of Downing's Dairy Incorporated, Rock Island, Illinois.

Thirty-eight years ago, with a scant fifteen summers behind him, Mr. Downing made his debut in the milk business as his father's helper in a new dairy enterprise. The enterprise consisted of one route, distributing milk that came from the Downing farm. The growth of the business into the flourishing modern operation of today is the same proud story that can be told of so many of our American dairy concerns.

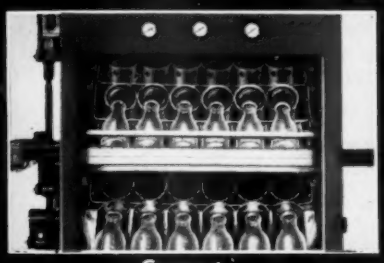
Five years after the first load of Downing milk went out on the route Mr. Downing, along with his three brothers George, Harry, and Ben, took over the management of the business. A fine up-to-the-minute milk and ice cream plant, twenty-two routes, and fifty-four employees stand as unimpeachable evidence of energetic and intelligent activity.

As the record would suggest Mr. Downing moves in circles where things are happening. He has been a leader in local and State dairy projects as well as civic activities. He is a past president of the Quad Cities Association of Milk Dealers and the Dairy Council of the Quad Cities. He has served in a like capacity with the local Merchant's Credit Bureau and the Illinois Milk Dealers Association. He is Chairman of the Agricultural Committee of the Rock Island Chamber of Commerce and is member of the Board of Directors of all the organizations mentioned. He is an active member of the Illinois Dairy Products Association and the Milk Industry Foundation. On top of all this he has found time to develop a respectable golf game and give some measure of satisfaction to his fondness for travel.

There are hundreds of Downings worked into the pattern of our society and yet there is only one. It is this fact, in the age of the atom and the jet plane, that reaffirms in unmistakable terms the fundamental truth that the greatest asset a community can have is the character of its people.

Better Bottle Washing in "Your Dairy" with . . .

THE *New* GIRTON *Soaker Washer*



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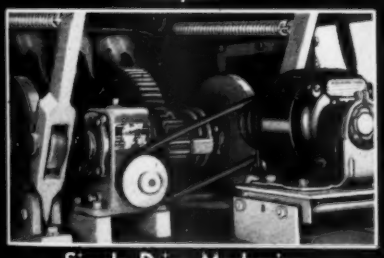
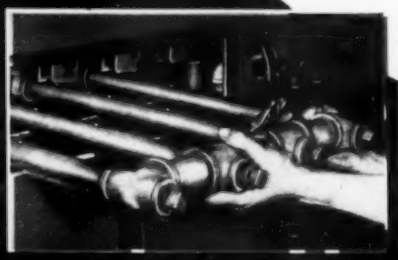


Simple Drive Mechanism

Are you planning new bottle washing Equipment? Learn about the new Girton Soaker Washers designed with a fresh engineering approach. They give better results, are more economical to operate and simple to maintain. Will wash from 16 to 72 bottles per minute. WRITE FOR BULLETIN

GIRTON
MANUFACTURING COMPANY
MILLVILLE PENNSYLVANIA

High Efficiency Pumps



Complete Accessibility

Strong, Rigid Steel Cups

The GLASS INDUSTRY

THERE ARE PRODUCED ANNUALLY in the United States more than a hundred billion pounds of milk. To produce, process, and distribute this huge quantity of food requires a vast team made up of farmers, handlers, food processors, and equipment manufacturers. It is a team operation from the word "go". As far as we know Romulus and Remus were the only individuals who ever consumed milk directly from a source other than their own mother. No matter how small the operation, somewhere along the line the milk must be handled before it is consumed.

If the operation of the dairy industry is a team operation then the problems of one group on the team are the problems of all groups. It is with this thought in mind that the editors of the *American Milk Review* present the first in a series of articles designed to give milk handlers some understanding of the powerful industry that produces the equipment so necessary to the production of a good package of milk. This month we give you the glass industry.

There is a sort of magnificent magic in the transition of a mountain of sand into the the hundreds of millions of sparkling containers in which a large portion of the nation's milk arrives on the door step. In that metamorphosis are the great furnaces and the endless molds that give form and substance to the raw material.

Hardly less startling than the fabrication of the containers themselves is the fact that this huge industry has come into being, for all intents and purposes, within the last fifty years.

It is a difficult thing to determine which came first; the bottle industry or the modern dairy industry. Whether the popularity of milk as a food created the milk bottle or whether the advent of a cheap, sanitary, practical container stimulated the consumption of milk and laid the foundations for the present mammoth enterprise. Whatever the answer, the two are on the same club today. Regardless of whether the container is paper or glass the dairyman is lost without something in which to put his milk. And the container manufacturer, for his part, has found one of his richest markets, in the dairy industry.

The Glass Container Manufacturers Institute, established in 1945, has a list of objectives that underline the interdependence of the dairy handler and the equipment manufacturer.

The objectives of the Institute as set forth in its charter include the following:

(1) to foster and facilitate packing and bottling in glass

(2) to expand markets

(3) to gather and disseminate information on matters of interest to those engaged in the glass industry and related industries.

(4) to develop standards.

(5) to promote the interests of the glass and allied industries through research, education, market research and promotion, reduction of costs and through services to manufacturers, packers, bottlers and other users.

Service is an overworked, misused, and much maligned word. Service is customarily considered as something one does out of the goodness of one's heart. It seems to us that this is wrong. It seems to us that the service which results from the interdependence of great industries is the real service. The relationship between the milk bottle industry and the dairy industry is a constant demonstration of what we like to think of as the final triumph of American capitalism.

The Editor.

XUM

finer ... ALL WAYS

Cherry-Burrell's new, all-stainless Superplate Shortime, the industry's most advanced plate-type pasteurizer; also available in plain, zinc metallized, painted finish models.

The New Superplate in Stainless Steel

Superplate in *stainless steel*—the conclusive answer to the need for more sanitary pasteurizing equipment—and better performance.

. . . And along with the basic advantages of its new all-stainless finish, Superplate offers extra-performance features that will do much to combat higher processing costs, today and tomorrow.

Superplate's well-proved ability to save space, steam, labor and time has been advanced with the development of more efficient plate construction. These new plates provide greater heat transfer, are individually removable, have Supertite bonded gaskets, are easy to clean; make the best use of the heating or cooling medium for maximum efficiency in heat transfer. There are many more new Superplate features that suggest an early conference with your Cherry-Burrell representative.

CHERRY-BURRELL CORPORATION

General Sales and Executive Office:
427 W. Randolph Street, Chicago 6, Ill.

Milk and Food Plant Equipment and Supplies
FACTORIES, WAREHOUSES, BRANCHES, OFFICES OR DISTRIBUTORS AT YOUR SERVICE IN 56 CITIES

trendmaker in a great industry

XUM

From deposits of sandstone, such as this, comes the iron free silica that is the basic ingredient in the manufacture of milk bottles.

HOW BOTTLES

Factual information and photographs for this article were furnished by the Thatcher Glass Company and the Owens-Illinois Glass Company.

A NUMBER OF MILLION YEARS AGO a casual nature saw fit to build up in the United States large deposits of a sand that contain less than one half of one per cent iron. By virtue of this fact a large portion of the fluid milk used in this country arrives on the consumer's doorstep encased in a transparent shell composed largely of high grade sand. For this iron free sand or silica, is the chief raw material from which milk bottles are made.

Beginning within the memory of many men now living the glass milk bottle has grown from the $15.00 a gross brain child of Dr. Hervy D. Thatcher, Ogdensburg, N. Y. druggist to a vast multi-million dollar a year industry. Last year American bottle manufacturers produced the astronomical number of 560,302,000 million milk bottles; enough containers if placed side by side to reach almost to the moon.

Is a Magnificent Story

The manufacture of milk bottles, like so many other phases of the dairy industry, is a story that has the heroic qualities of a saga. Sand, salt cake, soda ash, cullet (broken glass) and other chemicals are poured into the fiery belly of a two hundred and fifty ton furnace, melted into a white hot liquid, then pressed and blown into what is probably the best known container in the world.

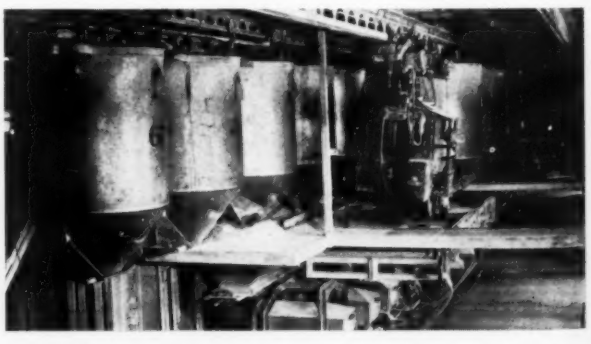
Sand is the basic raw material in the manufacture of milk bottles. The number one qualification of milk bottle sand is that it shall have an extremely low iron content, otherwise the finished bottle will have a murky, brownish cast to it that no dairyman or housewife would tolerate. Glass makers specify one half of one percent iron as the maximum. Fortunately nature has been liberal with the supplies of this type of sand. Large deposits exist in the United States particularly in West Virginia, Pennsylvania, and the Mississippi Valley. These deposits are sufficient to meet the needs of bottle manufacturers. Soda ash comprising about 25 per cent of the total raw ingredients of a milk bottle is the second most important material in point of quantity.

Ton and a Half to a Ton

Operating on the ration of a ton and a half of raw material to produce a ton of finished product, the various chemical substances that go into glass are carefully weighed and mixed in what is known among glass men as the "batch room". Thoroughly mixed in a huge automatic mixer the "batch" is stored in hoppers ready for introduction to the furnaces.

The furnaces, grim monsters, some of them capable of holding three hundred and fifty tons and more of "batch", are generally gas or oil fired. Fantastic temperatures are generated to turn the "batch" into a white hot molten liquid. So intense is the glare that workmen can look into the flames only through heavy blue glass that is held in front of their

In these huge bins sand, cullet, soda ash, and other materials are carefully weighed and mixed into what glassmen term "batch."



Once the batch is properly mixed it is transferred to hoppers that move to the furnaces. Furnaces are fed on regular schedules.

ARE MADE

By **NORMAN MYRICK**

Like ancient Vulcan, against a backdrop of smoke and flame, this inspector checks a bottle fresh from the mold table.

eyes when working around the furnaces. The furnaces are never cool except for repairs. Twenty-four hours a day they are absorbing "batch" from the hoppers and turning it into molten glass.

Moves Through Furnace Horizontally

The melted "batch" progresses through the furnace in a horizontal manner. Glass makers draw a hundred and twenty-five tons of molten glass per day from a three hundred and fifty ton furnace, consequently fresh "batch" has to be added on a regular schedule. The temperature at the melting end of the furnace is approximately 2600 degrees Farenheit, a temperature that drops gradually as the "batch" moves through the furnace to 2100 degrees at the working end. Time for the "batch" to move through the furnace varies from one to three or four days.

Once finished with its fiery baptism, the "batch", which is now semi-liquid glass, emerges into a feeder, a sort of trough arrangement, leading from the furnace to the molds.

The molds themselves are completely automatic affairs that by means of pressing and blowing operations fashion the melted glass into bottles. As the molten glass flows down the feeder to the molds the temperature drops and the consistency of the glass thickens. At the mold a pair of shears automatically snip off a gob of glass that weighs exactly 17¾ ounces. Air and water are played on the shears to prevent their failing under the intense heat. The gob of glass drops into the press or blank mold where a plunger shapes the cap seat, lip, and neck of the bottle. An iron hand then picks up the partially formed container and transfers it to the blow mold where compressed air under fifteen pounds pressure blows the bottle into finished shape.

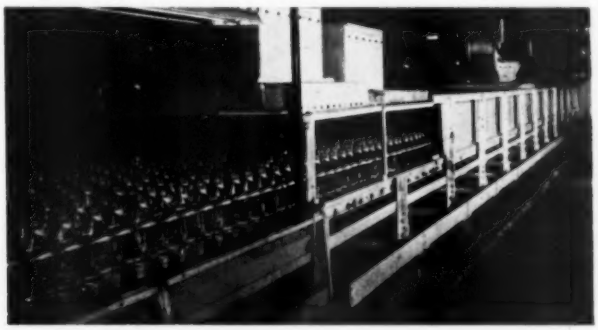
The molds mounted on revolving tables, eight to a table are made to extremely fine specifications. State laws are quite definite about the fact that a quart milk bottle must hold a quart of milk. Consumers, while they might be glad to get more than a quart of milk for their money certainly would become peeved at receiving less. And the dairyman who can give away milk for free has yet to put in appearance. Consequently the molds, which determine the holding capacity of a milk bottle, are built to very close tolerances.

Bottle Is Still Limber

By the time the fully shaped bottle comes out of the blow mold the temperature of the glass has fallen to below 1200 degrees. The glass, however, is still pronouncedly flexible and hot enough to set a piece of paper on fire. The only thing that keeps the bottle from collapsing at this point, is the thin skin of cool glass that forms immediately when the bottle is exposed to the air.

The molding machines are fully automatic affairs capable of producing 125 gross of bottles per 24 hour day. This

Glass is around 1700 degrees when it goes into the molds. Two sets are required, one called the blank mold the other the blow mold.



Some idea of the tremendous output of a modern bottle factory can be gained from this army of containers on their way to the annealing oven.

RIGHT IN LINE *with the needs*

There are many factors to consider in choosing a cover cap, but here are the three that really count when you get right down to cases. 1 The cost of the caps themselves. 2 The cost of operating your bottling room with those caps. 3 The acceptance of the cap by housewives.

Compare the Dacro P-38 with any cover cap on the market. You'll find that it rates at the top on every one of these three points. Right in principle and proved in use, this is the cap and the capping system that meets every requirement of modern, high-speed bottling . . . that gives you the things you want most in a milk bottle cap.

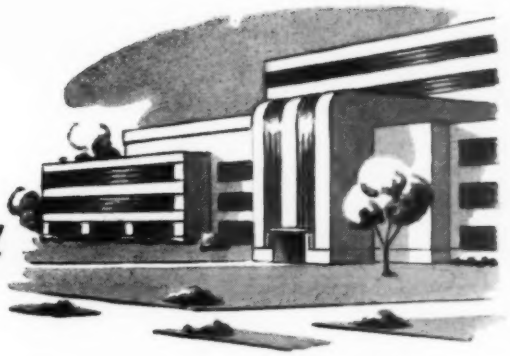
Dacro P-38

SAVES ON CAP COST

At least 17 more Dacro P-38 Caps can be cut from each square foot of material. This saving is passed on to users in the form of a lower cap cost.

With the Dacro P-38 your cap cost is lower. Because of its smaller size it takes less material to make and can therefore be sold at a lower price. It saves you money on caps every day you operate.

of the Modern Dairy



REDUCES OPERATING EXPENSES

MAKES A HIT WITH HOUSEWIVES

Here is where the Dacro P-38 counts most in your plant operation. Every stop and delay at the capping head means a loss of time on your whole bottling line. With the Dacro P-38, such time losses are almost completely eliminated.

The Dacro P-38 is a one piece cap which is applied in a single operation. The simple, positive action of the capping mechanism not only permits caps to be applied at high speed but also insures continuous, efficient operation. The capper runs steadily hour after hour with practically no interruptions to the flow of production. Users find that the Dacro P-38 is saving them up to an hour or more in bottling time, with a corresponding reduction in operating expense.

Consumer acceptance of Dacro is a well established fact. Housewives like its complete and positive protection and its convenience in daily use. It is easily and quickly removed and makes an excellent re-seal which can be snapped back on the bottle again as often as needed.

Before you decide on any cap, get all the facts on the Dacro P-38. Send for the Dacro Representative and let him explain the Dacro P-38 proposition in detail. Let him show you also how satisfactory it has proved in dairies where it is now in use and how it is saving them money on operating costs.

CROWN CORK & SEAL COMPANY • *Dacro Division* • **BALTIMORE 3, MD.**

XUM

So intense is the glare that workmen must use colored glass to protect their eyes when it is necessary to look into the interior of the furnace.

is a tidy number of milk bottles when one comes to think about it, amounting to a hair less than eighteen thousand containers.

Once the bottles are formed it is necessary to reheat them in order to remove some of the stresses and strains in the glass. It is these stresses and strains which produce brittleness. This process is called annealing. The operation consists of placing the bottles on a conveyor which carries them through a long oven known as a lehr. This lehr is about seventy-five feet long. The bottles move through the lehr at a snail's pace of twenty feet per hour. The entire trip requires four hours. The temperature in the lehr increases as the bottle moves along the conveyor reaching a high of 1700 degrees at the midpoint. Thereafter the heat decreases until the bottle emerges from the oven.

Constant Inspection

Each bottle is inspected for imperfections such as seeds, bubbles and blisters before being packed for shipment. Some bottles make a side trip to the lettering and decorating department where they get a second but milder annealing.

Brittleness and breakage are traditionally associated in the public mind with glass. The fabrication of sand into glass and glass into bottles is no exception to the rule. Making milk bottles is an exceedingly tricky and delicate process. The remarkable fact is not that bottles are broken during manufacture but that factory personnel are able to turn out a prodigious number of containers without being carved up into small pieces in the process. As a matter of record, cuts from broken glass in bottle manufacturing plants, are not common. Safety programs have been developed to a high degree. Broken glass is immediately swept up and put into the "cullet" bin. Cullet is the trade name for broken glass. The cullet is mixed with the sand and other ingredients that make up "batch".

Glass manufacturers report that their biggest headache is tied up with requests for special designs in bottle forms. Dairymen like to have distinctive bottles and the unique designs, necessary to provide the dairy operator with a bottle that may be easily identified as his own, require special molds. A few years ago the cream top bottle with its neck bulge was causing bottle men to develop more than an ordinary crop of grey hairs. The popularity of homogenized milk and the square bottle has tended to decrease the demand for the cream top design, however. Nevertheless, special designs are still very much in the milk bottle picture with many different shapes and sizes in use.

Replacement milk bottles, which cost dairies about $17,000,000 annually, amount to about 4% of the bottles in use. The biggest reason for this is not due to breakage, a sizable figure by itself, but because the bottles are not returned to dairies by consumers. In fact, so serious is this problem that many cooperative bottle collecting exchanges have sprung up throughout the country. Two hundred such exchanges in larger cities return over 200,000,000 bottles per year to their rightful owners.

Milk Bottles and Milk Price

The demand for milk bottles is often affected by the price of milk. If the price is increased to consumers as little as one cent per quart, bottle makers are often flooded with telegrams from dairies reading "Hold our order." The price increase is sure to reduce sales, hence the need for fewer replacement bottles. On the other hand, if the milk price goes down, telegrams are received ordering more bottles.

Milk bottles, like the splendid food they contain, probably suffer a lack of appreciation simply because their role in the every day business of living is so important that they are taken for granted. And yet if one can look beyond the geometric perfection of form and the sparkling beauty of clear flawless glass to the great furnaces and blazing heat where they are born, one cannot but feel that here, in the common everyday garden variety of milk bottle, is a story of human triumph that must rank with the great sagas of history.

When the bottles leave the annealing lehr they are inspected again before being packed into boxes for shipment. Faulty bottles go into the cullet bin.

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CLEAN BOTTLES IN THE DAIRY PLANT

By **PAUL K. GIRTON**

President. Girton Manufacturing Company

FUTURE HISTORIANS of nutrition will pay tribute to the important part the glass milk bottle has played in

the tremendous development of fluid milk as a widely used food. In doing so, recognition must also be given to the development of proper bottle cleaning. It is the ability of the dairy, large or small, to package milk in a clean, sparkling, sterile container that has helped the glass bottle realize its full potential.

I use "the ability to package milk in a clean, sparkling, sterile container" advisedly, however, for the general standards of bottle cleaning throughout the dairy industry still are not what they should be. Modern bottle cleaning equipment clearly shows the experience, engineering skill and careful design that has been put into it. Unless this equipment is properly operated and maintained, however, it will do less than the good job it is capable of doing. It takes only a little effort and care to get the most from your equipment.

Selection of Equipment

Before we go into the matter of operation and maintenance, we might profitably discuss the choice of bottle cleaning equipment, for the selection of the proper type is of real importance.

The deciding factor in selection is generally the number of bottles that are to be washed, for a plant of one size will need a different machine than one that is several times larger. It is not economical to install a machine with a capacity obviously too large or too small for the needs of a particular plant.

The soaker type bottle cleaner is usually indicated for the processing plant bottling 5,000 bottles or more per run. A minimum of two persons are needed to operate this plant, one on the washer and one on the filler, with an automatic conveyor carrying the bottles between the machines. This run of 5,000 or more bottles is sufficient to justify the heating of the various compartments of the soaker type machine and the waiting necessary before the clean bottles begin to come through. An empty case washer is highly desirable equipment in conjunction with the soaker installation in order to provide clean crates for the bottled product.

Where approximately 1,500 to 5,000 bottles are required, a straightline pressure bottle cleaner is generally the most efficient and economical machine. This machine will do a thorough cleaning job on both bottles and cases at one and the same time and requires only one operator. It can be equipped with a case forwarding device to automatically convey the bottles and cases to the filler and capper.

The compartment type pressure bottle cleaner is an ideal machine where the production run approximates 250 to 1,500 bottles. This machine also washes the bottles and cases in the same operation, then rinses and sterilizes them. It requires a minimum of steam capacity in its operation, and the services of only one operator. The smaller dairies generally find this machine the answer to their bottle cleaning problem.

SWEET TOOTHED POOCH

Strangers stare, but Miss Maude Finney, owner of an Omaha, Neb., drug store, goes right ahead and serves a daily cone to Zip, an 8 year-old collie.

Zip is the only Omaha dog with a charge account for ice cream cones. His taste costs Zip's master about $1.50 a month. The collie has been going to the drug store for two years. He always gets vanilla.

The small dairy with a production of less than 250 bottles will find one of the brush type electric washers, in the three-brush or one-brush models, a satisfactory means of cleaning bottles. Properly used in conjunction with a compartment wash tank for soaking, rinsing and chlorinating, a bright, clean bottle can readily be produced. As soon as the dairy grows beyond this size, however, good practice dictates the use of a pressure type bottle cleaner.

Sufficient Steam Capacity

Heat is the great ally of dairy sanitation. A sufficient steam supply to heat the various solutions in the bottle cleaning equipment, as well as taking care of the other processing and cleaning operations, is indispensable. Be certain that the boiler capacity is sufficient to take care of all these requirements, even at peak periods.

An adequate water supply of good quality is equally indispensable. Good quality means low bacteria count and low mineral content. The water must be drawn from a safe and protected source, as water with a relatively high bacteria count will recontaminate an otherwise clean bottle. Therefore, no effort should be spared to secure a water source that is safe.

The degree of hardness, on the other hand, cannot always be controlled and sometimes creates washing problems. The ideal solution to a hard water supply is a water conditioning system. Such an installation will correct the hardness difficulty and make possible a clean, sparkling bottle. Most plant operators feel such equipment is a very worthwhile investment from every point of view. If, however, this equipment is not feasible the difficulty of an unavoidable hard water supply can be overcome to a degree by the use of proper cleaning compounds suitable to the particular conditions existing.

An operating pressure of about fifty pounds should be maintained.

The Operator

With the right machine properly installed and connected to an adequate steam and water line, the bottle cleaning equipment is ready to do its work. The job is now in the operator's hands. But here we come upon one of the most common mistakes made in the dairy plant—the choice of the operator for the machine. With a full realization that the packaged bottle of milk can be no more hygienic than the bottle into which it is poured, too many plant operators persist in placing their least competent and responsible operator on the bottle cleaning equipment. Poor results almost invariably follow.

Put an intelligent, well trained operator in charge of your equipment and you will get clean bottles. The standard of the bottle cleaning operator

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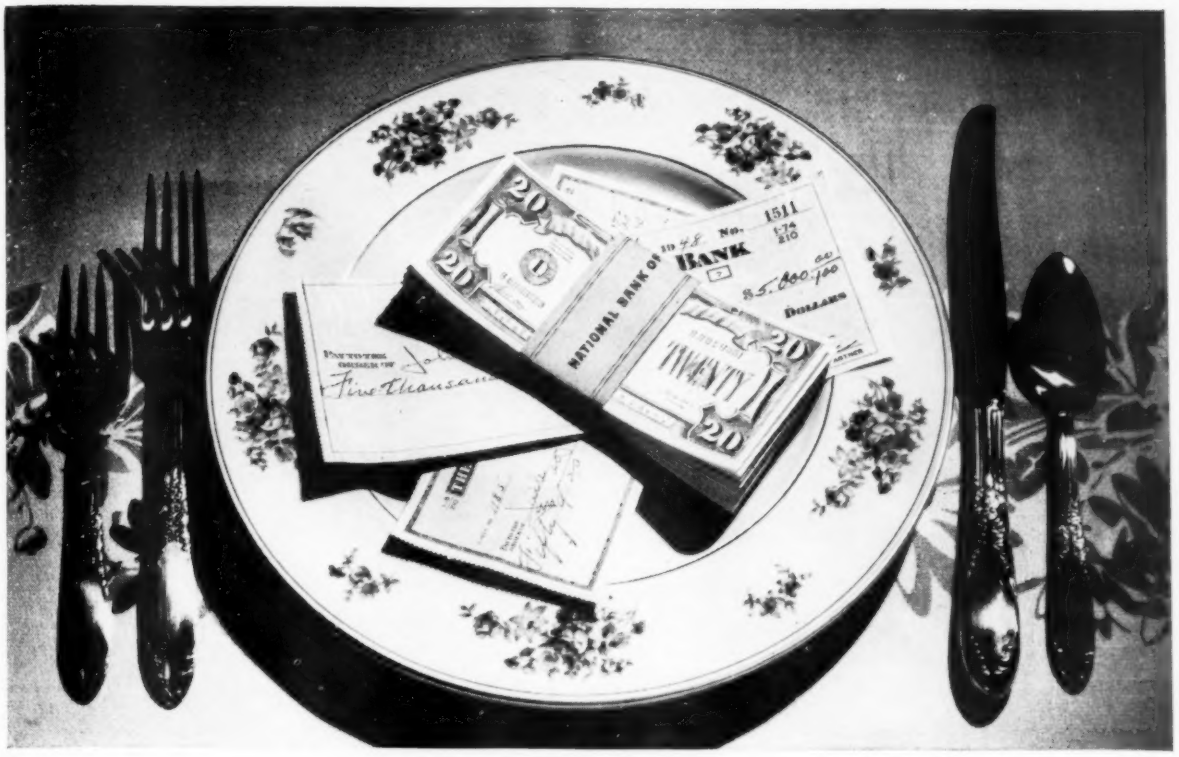

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IS FOOD FOR THOUGHT

A DIRECT MESSAGE TO MILK PLANTS:

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AN INVENTOR NAMED THATCHER

A Multi-Billion Dollar Fluid Milk Industry Has Been Built on the Foundation Laid By An Obscure New York Druggist A Scant Sixty-Two Years Ago

By **ADA E. BARDOSSI**

A LITTLE MORE than sixty years ago, two stout-hearted dairymen, in the village of Ogdensburg, New York, defied five thousand years of tradition by putting up their milk in sealed glass containers. In the space of one generation the idea revolutionized the dairy industry and the milk bottle took its place as one of the best known containers in the world. Yet, inspite of the phenomenal success of his creation, the originator suffered the fate that fortune seems to reserve for inventors; after a life time of hard work he died in poverty and discouragement. His name was Hervy Dexter Thatcher.

Dr. Thatcher, a native of Newport, N. H., spent much of his life in St. Lawrence County, N. Y., and it was there, in Ogdensburg, that glass milk bottles were first used for door-to-door delivery in August 1886.

In Ogdensburg, the inventor is being honored this month in connection with the city's 200th anniversary of its founding in 1748 by Father Francois Piquet, a Sulpician priest. The city plans a week-long celebration starting Aug. 14, during which honor will be paid to Dr. Thatcher. The Ogdensburg Journal is publishing an edition devoted to Dr. Thatcher's colorful life and his historic inventions.

Recognition of the late inventor is being pushed by Fred J. Hayes, Potsdam, N. Y., a close friend, and for 35 years an inspector of food and dairy products for the New York State Health Department. Mr. Hayes spent a great deal of time earlier this year in trying to persuade the United States Post Office Department to issue a special commemorative stamp in Dr. Thatcher's honor. Suggested designs included a portrait of the inventor and a picture of the first milk bottle, which is very similar to that in use today.

The plan to issue a commemorative stamp failed, but a special envelope cachet is being printed for use in connection with Ogdensburg's Bicentennial celebration, to pictorialize through the mails the important invention.

The importance of Dr. Thatcher's invention can only be estimated when earlier methods of delivering milk are realized. Before the milk bottle, milk dealers delivered their product in 40-quart cans, open to the dust and dirt churned up by the hooves of the horses drawing the wagon. Housewives came out to the street with their pitchers to purchase the germ-infested liquid, and the driver dipped the milk with a pint dipper from the depths of the can. If, as sometimes happened, a foreign object, a hat or glove or perhaps a child's toy, fell into the milk can, it was fished out and the ladling continued. Little thought was given to the possibility of deadly germs.

The first true milk bottle was this glass topped container developed by H. D. Thatcher. Wire bail was a "bug" eliminated by the "Plug cap" devised a few years later.

Dr. Thatcher saw the danger, however, and put his inventor's mind to work. His background had been varied, but in time he came to concentrate almost entirely on food products and means of improving them.

Born in New Hampshire Dec. 28, 1835, he went to school in that state, at Newport, New London, and Washington, and later in New York State, at Potsdam and Ogdensburg. He arrived in St. Lawrence County in 1852, while still in his teens, and taught school. Later he studied medicine in Cincinnati. His travels took him to New York City and Walton, Ky., where he worked in drug stores. In 1859 he went back to St. Lawrence County, where he spent the rest of his life.

His inventions included an orange butter color, a baking powder, the glass milk bottle, and a covered pail for milking called the Milk Protector. This last was featured on his milk bottle.

The first milk bottles had glass tops, held on by a kind of wire clamp, and had on their sides a picture of a farmer using the Milk Protector. At the bulge or shoulder of the bottle was the slogan in raised letters "Absolutely pure milk." Beneath the picture was the caption, "The Milk Protector."

The glass tops were soon found to be unsatisfactory because they allowed the milk to spill out over the floor of the wagon, resulting in partly-empty bottles of milk reaching the consumer. Dr. Thatcher experimented further with a paper gasket inside the glass top of the bottle. From this came, in time, the paper cap in use today.

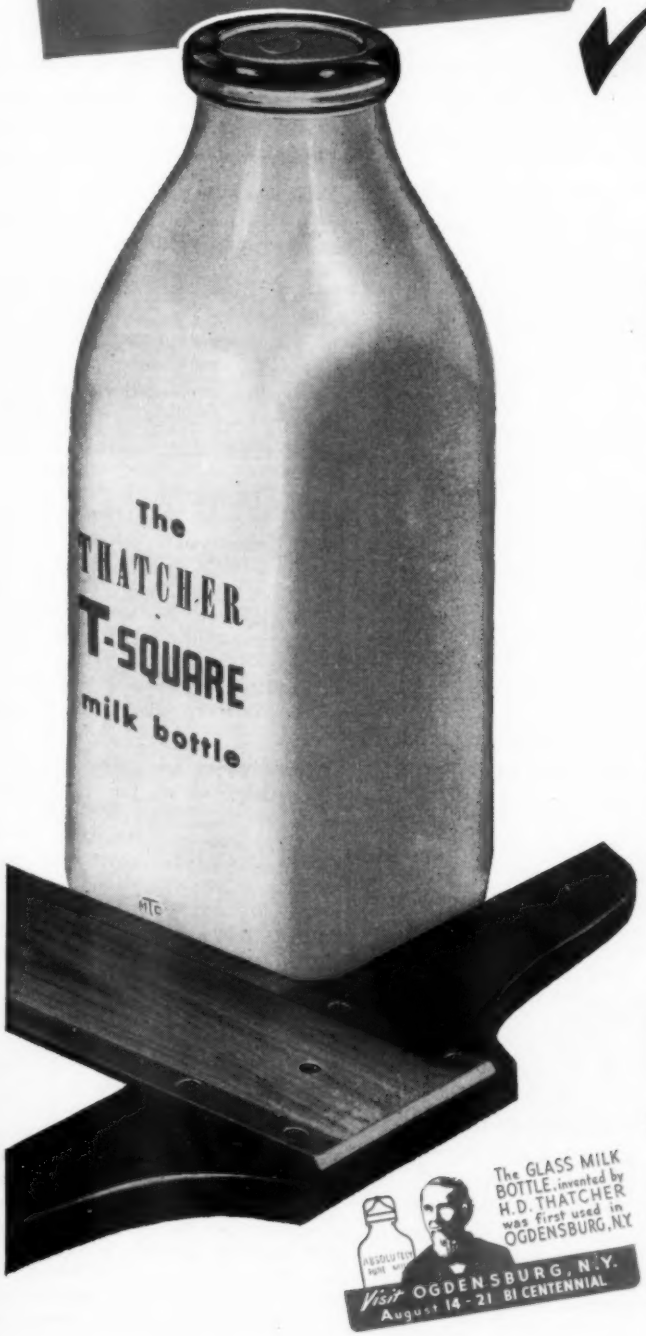
Among the first dairies in the United States to make use of the revolutionary invention were the Woodford Farms and Wilcox Dairies, both of Ogdensburg. At the time of the glass milk bottle's introduction, cream was five cents a half-pint and milk five cents a quart. The use of the glass bottle did not cause increased prices for milk.

The immediate popularity of the milk bottle is evident from reports that the

(Please Turn to Page 85)

How to Decrease Costs 1¢ per quart

Size of route loads — quarts delivered per route per day — is the most important factor in selling and delivery costs of milk. The larger the route load, the lower the unit cost. An increase of just one-third in the size of the daily route load will *decrease costs 1c per quart.*


The
THATCHER
T-SQUARE
milk bottle
The GLASS MILK BOTTLE, invented by H.D. THATCHER was first used in OGDENSBURG, N.Y.
Visit OGDENSBURG, N.Y.
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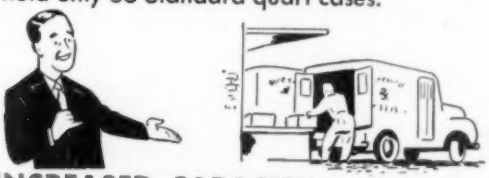

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SAVE TRUCKS

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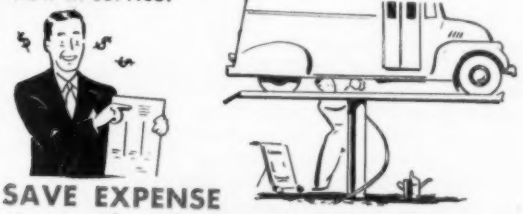

SAVE EXPENSE

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North of Forty-Nine

A PAGE DEVOTED TO THE DAIRY INDUSTRY IN CANADA

By **PHIL GLANZER**

NEW MECHANICAL MILKMAN

Vending Machine for Milk is Being Introduced to Canadian Market — Meets U.S. Health Requirements

EVER WANT A QUICK GLASS OF milk, but do not have time enough to go through the regular cafeteria or restaurant line-up? Your problem is solved by a new machine which will take your coin, pour you a glass of milk in a cup which it also supplies. There is also an interesting-looking appliance which will take your empty cup and pack it down in a wax-paper bag to be emptied in the future.

This mechanical milkman is put out by Milk-O-Mat (Canada, Ltd.). The parent firm is American, but due to production difficulties the machine is going to be introduced in Canada before the States. This is the first milk dispensing machine that has passed the Board of Health of the City ot New York, complying with all the requirements of Section 10 of the 1939 Milk Code of the U. S. Health Service.

The machine itself stands 70 inches high, 29 inches wide and 23 inches deep. It weighs close to 400 pounds, but the manufacturers have thoughtfully provided caster mounts that make it easy to move. There is a modern refrigerator unit that keeps the milk at a constant 40 degrees.

It will dispense milk or fruit juices, or any non-carbonated beverage for that matter. The drink comes from the producer in a sealed, sterilized container with a patented collapsible paper seal. The attendant opens the cabinet and puts in this container, attaching it to the inner mechanism in a few moments and with no tools. A measuring device automatically agitates the milk and pours it into a cup. The patented container holds 213 drinks of 6 oz. each. At all times there is the strictest sanitary treatment of the liquids dispensed.

These machines can be installed wherever people congregate: factories, offices, clubs, restaurants, schools and theatres. The cabinet itself is made of handsomely finished aluminum with all the usual coin selecting machinery. It may not be long before you, too, can put a coin in the slot and get your daily milk on the street corner!

GET OUT THE DEEP FREEZE

Montreal, Quebec – Educating the Eskimos to eat white men's food may curb the alarming increase in infant mortality among natives of Canada's Arctic, Dr. W. H. Lewis, Ottawa physician, said yesterday.

Dr. Lewis said that faulty diets by Eskimo mothers has brought about the high infant-death rate. He said he plans to educate the mothers to make greater use of cereals and powdered milk, especially in pre-natal and post-natal periods.

He said the cereals and powdered milk now are being made available to Eskimo mothers at trading posts.

B. C. FLOODS THREATEN MILK

Calgary, Alberta–Unless the B. C. government works a "near miracle" and finds hay for flood-stricken Fraser Valley dairy herds, there will be a serious milk shortage in British Columbia this winter, G. W. Challenger, Chilliwack, B. C., told the Alberta Jersey Breeders' Association, here. Fraser Valley herds usually import 7,000 tons of hay each winter, but needs for the coming season will be about 20,000 tons, or 50 trainloads of 50 cars each.

●

HERBERT FIELDSEND HONORED

Melville, Sask.–Herbert "Bert" Fieldsend, a well-known and highly respected employee of the Saskatchewan Co-Op. Creamery at Melville, was the guest of honor at a banquet and reception recently when fellow employees and associates gathered to honor him on his retirement. Mr. Fieldsend had served the creamery since 1932.

MILK PRODUCTION IS FALLING

Canadian Situation Reflects United States Problem as Dairymen Exhibit Concern Over Raw Supply

Woodstock, Ontario–No less than four dairy leaders referred to the depressing fact that milk production is falling in Canada at a recent meeting of the Ontario Concentrated Milk Producers. Frank Way, Ingersoll, the president of the Association, and John Ballantyne, the visiting president of the Ontario Cheese Producers' Association both emphasized the necessity of a balance between prices and costs if there was to continue an adequate supply of dairy products for domestic requirements. Prof. W. H. Sproule, head of the O. A. C. Dairy Department, pointed to an increase in milk, production from 1939 to 1945 of 1,800,000,000 lbs. but added that this trend has now altered and production is declining. Erle Kitchen, Secretary Manager of Dairy Farmers of Canada, read a prepared statement on the situation which was, in part as follows:

"Many of us are uncertain and confused today about the future of the dairy industry. This is evidenced by the rapid decline in the dairy cow population of Canada, which may quickly reach a point from which it will take years to recover. Milk production statistics released on June 1 clearly indicate that our over-all milk production for 1948 will fall far short of meeting our domestic requirements and our export commitments.

"Let us look at this situation carefully for climatic conditions have been reasonably favorable this spring and milk production should have been good. What is happening? What are the factors that are reducing milk production? This is a matter of concern not only to us as farm people but to all the people of this country. Canada is making rapid progress today as an industrial nation but it would be tragic indeed if at the same time her basic agriculture were to weaken and decline.

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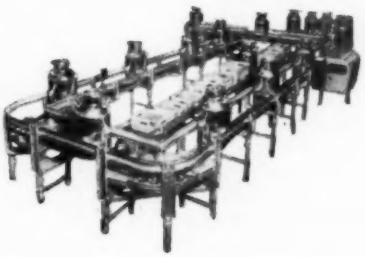
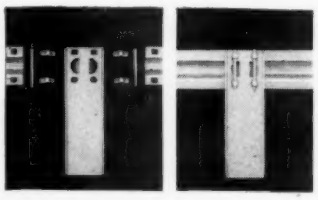
sensational new conveyor for cases, cans, cartons





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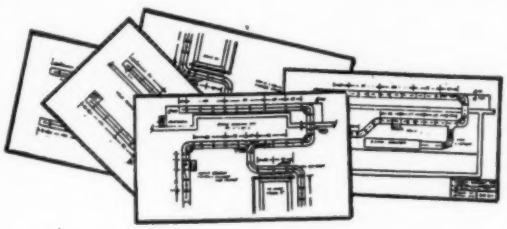

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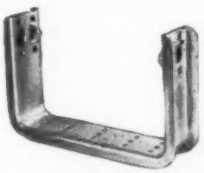
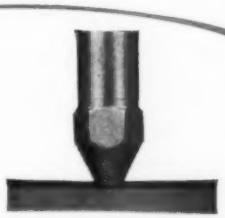
Hi-Flex **permits an almost limitless variety of conveyor layout. It will fit your needs today—and every day. Packaged units are available, and interchangeability of parts—plus easy assembly and disassembly—makes it simple to remove or add straight sections, curves, take-ups, and drives. And it's a snap to change from single chain to double chain conveyor. Hi-Flex can be moved in the plant or from plant to plant as conditions change.**





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Interchangeable. **Precision-built units and parts give maximum interchangeability. Uniformity and standardization simplify your assembly, installation, and changes. As time goes on, you'll appreciate more and more the rugged construction of the standardized Hi-Flex parts. For they're heavier—galvanized to give many extra years of trouble-free service . . . many extra years of rigid, true alignment.**

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trendmaker in a great industry

HANLEY CREAMERY SOLD

Hanley, Sask.—Lewis R. Sutherland, who has been associated with the dairy industry for the past 45 years, sold the Hanley Creamery, Hanley, Sask., to The Dairy Co-operative Marketing Association (The Dairy Pool), who took over immediately.

Mr. Sutherland built the Hanley Creamery in 1925. Additions were later made to the original building with more modern machinery added, including two refrigerator storage rooms.

Although totally blind since 1936, Mr. Sutherland carried on with his work. Eight years ago a stray dog came to his home and he trained the dog to take him back and forth to his work, a task the dog carried out faithfully during the past seven years.

W. W. Bell has been appointed manager of the Hanley Creamery.

●

MILK AT "LESS THAN COST"

Vancouver, B. C. – Seven Vancouver dairies testified that standard milk is delivered in Vancouver at less than cost of production.

Eric Richardson, chartered accountant, representing six of the dairies, told Milk Board Chairman E. C. Carr, that there was no provision for rising costs in the present price structure.

He said that "prompt adjustment" was needed.

"If the dairies are making a profit, it is from products other than standard milk," he stated.

Halts Operations

One dairy was said to have ceased operation due to high costs.

Mr. Richardson said dairies had recently concluded new wage agreements at additional costs ranging from $2100 to $4000 per month.

"Under rigid control system there has been no chance to develop any surplus," he declared. "Only heavy wartime sales kept some dairies going."

$2040 Costs' Boost

Crystal Dairy Ltd., which filed a separate brief, presented figures showing increased operating costs of $2040 per month since the 15-cent consumer price was set November 1, 1947.

They cited such increases as payroll, gasoline, fuel oil, feed for horses and insurance.

Grocers, represented by W. C. Brown, Retail Merchants' Association, are also asking an increase in their milk markup.

Lower Store Price

Representing Safeway Store, H. C. McCallum urged a lower price of milk in stores, where low-income families could offset delivery charges by carrying their milk home.

Labor, consumer and Parent-Teacher groups were strong in protest against any price rise.

Daniel O'Brien, representing the B. C. Federation of Labor, charged that the children would suffer if any price boost was granted.

Consumption Drops

He said that since the last price rise milk consumption had dropped considerably.

"Labor demands restoration of the government subsidy," he declared. It calls on the government to accept responsibility for the health of the people."

"Milk consumption is 15 per cent below the minimum required for good health."

CHEESE IT — THE COPS

Guelph, Ontario—Drayton folk hardly know whether to be glad or sorrowful when told that Jim Walker has a ticket for them.

"Milk or parking?" comes the cautious query.

Newly appointed chief constable of the village, Jim doubles as a milkman, driving a truck for a dairy.

Drayton people are so law-abiding he'd get soft and fat on the job as constable alone, Walker explained. Heaving cream cans around all day keeps him in shape to handle the few folk who do become unruly at times.

COURSE ON PASTEURIZATION

Regina, Sask.—J. G. Schaeffer, director of the sanitation division of the Saskatchewan Dept. of Public Health, has announced that a short course for pasteurization operators of Saskatchewan's 40 milk plants will be held at the University of Saskatchewan. Arranged through the co-operation of the Department and the University, the course will be given without tuition fees. It is designed to present a study of all phases of pasteurizaion methods for the benefit of all operators in the province.

●

FIRE RAZES SURREY DAIRY

New Westminster, B. C.—Fire razed the Surrey Dairy, Scott Road, New Westminster, causing damages estimated at over $12,000. The dairy housed pasteurizing equipment, bottling and capping machines, freezing units, walk-in cooler box, milking machines, etc. The dairy is operated by Orme C. Lipsey.

DEVELOP DRUG FOR LACTATION

Cambridge, England—Barren cows and sterile heifers have been brought into milk in recent experiments at the Cambridge Agricultural Research Station, England. Average yields of up to 141 lb. of milk per week from 48 heifers have been obtained after treatment with stilboestrol. The drug is implanted in tablet form beneath the skin of the neck or shoulder of the animal under local anesthetic. The heifers came into milk from one to six weeks after implantation. At first the yields were low but they subsequently rose steadily for some weeks. The tablets were left for periods of between 60 and 110 days, but 70 days was found to be the optimum period. After reaching the peak of 141 lbs., a gradual decline in yield took place until the heifers were yielding about 75 lb., in the twenty-fifth week after lactation had begun. Subsequent to this induced lactation 70% of the heifers got in calf normally. Sterile dry cows also have been treated with stilboestrol, but chances of success are not so good as with heifers.

●

B. C. REGULATION ACT

Vancouver, B. C.—A Creameries and Dairies Regulation Act before the British Columbia Legislature, and sponsored by Agricultural Minister Frank Putnam, is directed to provide stricter control over the creameries and dairies in the province from the point of view of public health.

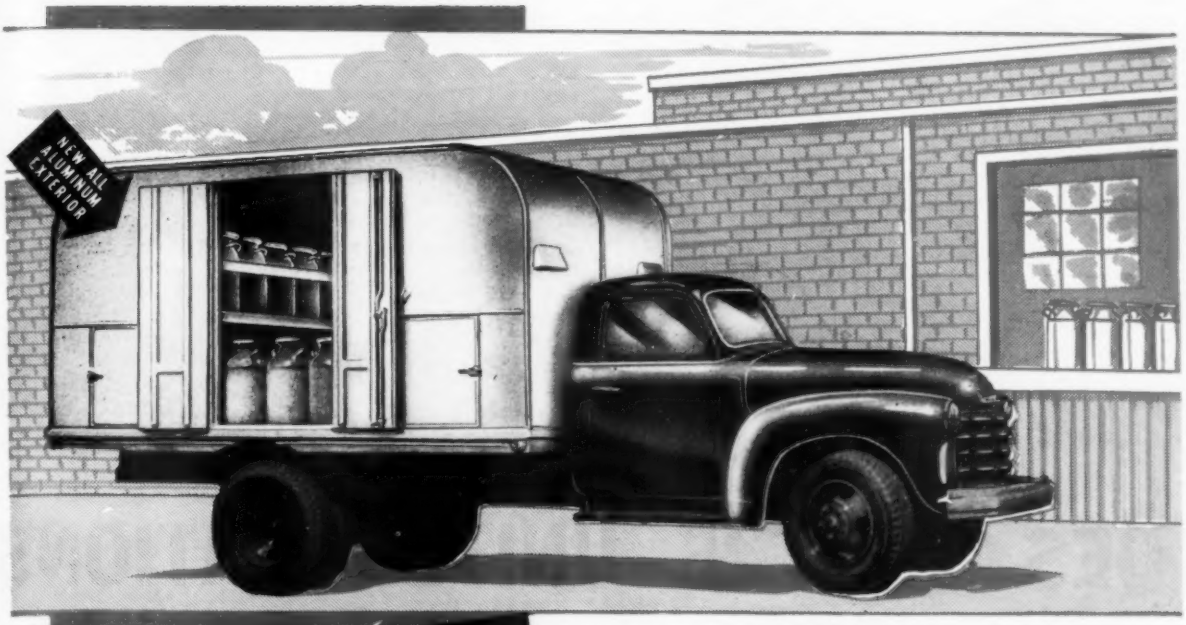
Mr. Putnam explained to the House that, within recent years, dairies had sprung up all over the province and that many of them, on inspection were found to be dangerously unsanitary. "Some of the pasteurization plants", he said, "are in such bad shape that they are worse for the milk than if it wasn't pasteurized at all." The Bill provides for licensing of plants and the cancellation of licenses if the plants are not up to requirements.

●

CHANGES AT NANAIMO DAIRY

Nanaimo, B. C.—Nanaimo Co-operative Dairy Association, Nanaimo, B. C., has gone into liquidation as a legal step, it is reported, before changing the Association into an ordinary limited liability company.

A new company will be formed known as Nanaimo Dairy Co., Ltd., which will take over all assets and assume all liabilities. Members of the Association will become shareholders in the new company and the directors of the Association will function as directors of the new company.



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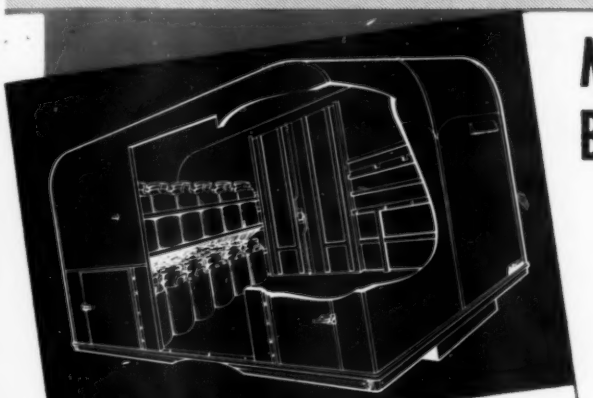
Yes, performance throughout the industry has proven that for farm milk pick-up, Millington Insulated Milk Truck Bodies score highest on every count. ● Lower Priced and Better Built—a lower investment. ● Lighter weight reduces operating costs, tire wear, and general maintenance. ● Prompt Deliveries—Standard models available within two weeks time. ● Greater Capacity—Double your pay load by double decking. ● Lightens work—It is necessary to enter body but once, each trip, to load deck. ● Completely insulated—Entire body, including doors, completely insulated with scientifically improved, heat reflecting aluminum foil. Yes, your best bet is a durably built Millington Body with either tempered masonite or aluminum exterior.



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JOHN BOYSEE
Head Chef at the United Nations

Milk GOES TO THE UNITED NATIONS

By **HUGH ROBINSON**

CONTRARY TO THE IMPRESSION gathered from the press and radio, the nations of the world do enjoy common ground. They all must eat.

In the former Sperry Corporation building at Lake Success, Long Island, United Nations delegates from fifty-eight countries are demonstrating that the stomach is a constant refutation of political differences.

Twenty-four hours out of each day, every day in the week diplomats and clerks, newspapermen and secretaries, delegates and visitors follow the urgent dictates of their mid-sections. Though tastes may vary the objectives are the same. They eat. So well do they fare that the huge cafeteria in the present temporary quarters of the United Nations averages four thousand meals a day on a round the clock schedule.

The cafeteria gives a strange impression. Standing at the entrance one can see signs, their messages written in both English and French, indicating the counters and other installations; and a glance at the faces in the huge dining rooms shows a cross section of the world's racial stocks.

Some People's Tastes —

Stomachs may be cosmopolitan but palates are strictly nationalistic. The staples of life become complicated when interpreted by the peoples of many different lands. Ask the average American how he drinks his milk and almost to a man you will get same answer; from a glass, dope. Ask the same question of a Southern European and you will find sour cream poured on top of fresh sugared fruits as the popular favorite.

Administering to the complicated gustatory requirements of these people gathered from the ends of the earth calls for a vast amount of skill. At Lake Success the task has been given to a mild mannered man named James L. Hever.

Somehow a dining room wouldn't be international unless there was a sprinkling of exquisite French cuisine on the menu. At Lake Success this is supplied by head chef, John Boysee, who was trained in the grand tradition of the French kitchen. Among Chef Boysee's jobs is the translation of all menus into French, the diplomatic language, so that all delegates can know what they are ordering.

The cafeteria is sparkling with activity at all hours. Outside of the regular meal times the English come down for tea in the afternoon and don't come down again until nearly nine o'clock. The Scandanavians enjoy a mid-morning lunch and the coffee urn is never idle. Late workers come in for a snack before going home and early workers fire the boilers with a bite or two before taking up their duties. All night sessions of the Security Council or the General Assembly are liable to take place with little advanced warning which means 2000 extra meals. And on top of all this is a constant stream of visitors who wander in whenever they feel like it.

— And the Time They Eat —

"How many meals do we serve each day?" said Mr. Hever in answer to a question. "I don't know. If I did, life would be a great deal simpler. My best estimate might be as much as forty per cent off either way. Still we manage to have food for everyone who comes in.

Toward the end of the cafeteria's brilliant food display is the section reserved for milk drinks, and dairy products. According to Mr. Hever, dairy products, in one form or another, are selected by practically every patron.

The daily consumption in both the cafeteria and the dining room averages approximately 1500 half pint containers of Vitamin D Homogenized milk, 320 quarts of milk for cooking purposes, 200 quarts of chocolate milk, 150 half pint containers of Dannon Yogurt, 120 quarts of light cream, 15 quarts of heavy cream, and 15 quarts of sour cream for the fresh fruits. The dairy products are furnished by Queensboro Dairy & the Dannon Yogurt Co.

The storage space for milk cans is a refrigerator with doors at both ends. One door opens out into the cafeteria and the other opens out into the side of the building so that deliveries may be made without dragging the milk cans through the kitchen. Another, somewhat smaller refrigerator, running al-

most parallel to the larger one, is used to store the yogurt and cream.

Efficiency seems to be the keynote of the cafeteria's staff. There is a special counter for the visitors and another for the Secretariat, while the dining room is reserved for the Delegates and their friends.

— Doesn't Change Milk

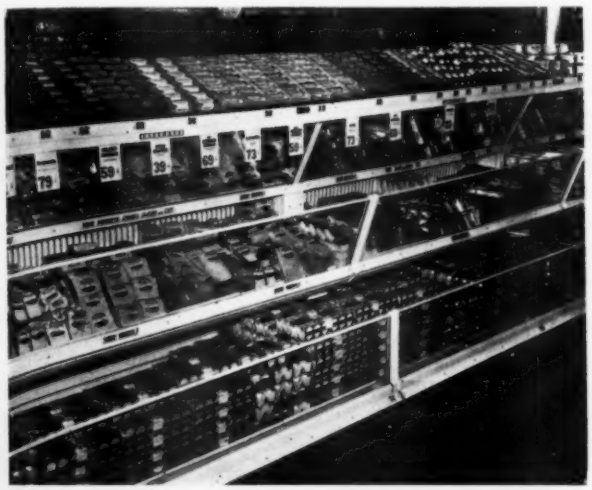
The world may or may not be ready for the great concept which the United Nations represents. And yet in these troubled times when the terrible question of war or peace hangs in the balance and the differences of nations seem almost beyond adjustment the common interest of men are nowhere better promulgated than in the cafeteria of Lake Success. And whether it is yogurt, or sour cream, or homogenized, or vitamin D is immaterial. For as the wits of a decade past would remark no matter how you prepare it, it's still milk.

●

Grand Union Opens Market

A super super-market has been opened in New York by the Grand Union Company. The store, said to be the last word in retail merchandising, is a brilliant concentration of new types of counters, refrigerators, packaging techniques, and customer service.

The dairy and cheese counter at the store is entirely self service. The counter itself stands about four feet off the floor and has a vertical glass partition about the height of a



Dairy Counter in Grand Union's New Ultra-modern Store.

milk bottle on the top. The milk and cheese is placed behind this partition and all the customer has to do is reach down and lift out the desired item. Underneath the glass partition is a refrigeration unit that maintains the temperature between 30° and 36°F. The unit works on the principle that cold settles and heat rises and and therefore the whole top of the refrigerated counter can remain open without losing any substantial amount of refrigeration.

When it comes to cheese, the store has on display more than fifty different types. The cheese arrives at the store in large wholesale pieces. It is cut up in the back of the store into quarter, half, pound and two-pound sizes priced, labeled, wrapped in transparent wrappers that are heat sealed and then placed in the refrigerated self service case.

Everything is done to speed up the process of shopping and yet at the same time give the customer a sense of leisurely buying.

Yes, Mr. Dairy Plant Operator, what a boost in volume and profits that would mean to you!

And you *can* get more top quality milk if *more* of your producers do a good job of killing bacteria. That's where the LO-BAX "PMQ" plan pitches in for you.

In dozens of ways, the "PMQ" program shows your producers how and why they should use a chlorine rinse consistently. You are given persuasive LO-BAX letters and folders for enclosing with milk checks. You get attractive LO-BAX posters, milk house instruction cards and booklets on milk sanitation—merely by handling LO-BAX. You get *regular* help in LO-BAX farm paper and radio advertising —doubled in intensity this year.

Ask to see what's included in the LO-BAX plan. You'll want the help it can give in raising your profits, in boosting your volume and strengthening your competitive position. Write Mathieson Chemical Corporation, 60 East 42nd Street, New York 17, N. Y.

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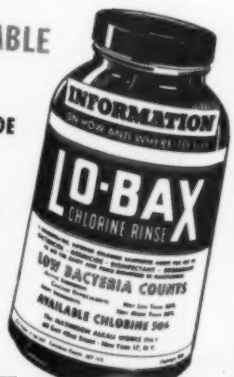

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PMQ PROTECT MILK QUALITY

Lo-Bax . . . Super Nufos . . . HTH-15 . . . Dry Ice . . . Carbonic Gas . . . Ammonia, Anhydrous & Aqua . . . Caustic Soda . . . Soda Ash . . . Bicarbonate of Soda . . . Liquid Chlorine . . . Chlorine Dioxide . . . PH-Plus . . . Sodium Chlorite Products . . . Sodium Methylate

One of the earliest attempts at packaging milk in a home-sized container was this device known as the Lester Milk Jar. The package, which cost 49 cents, was used by the Lester Milk Company in New York from 1878 to 1880. The expense of this pioneer container was so great, however, that the company was forced out of business.

The invention of the first really practical milk package was achieved by Dr. H. D. Thatcher in 1886. The development marked the beginning of the general use of glass bottles for milk. Unscrupulous dealers of those days objected strenuously to the new bottles because their transparent nature showed the cream line and gave consumers a basis for comparing the products of competing dairies.

70 Years OF MILK

The Spanish-American War was playing out its tragic role when protective hoods began to gain a place in the milk business. Early hoods were five-inch discs of parchment paper held in place by a rubber band. Metal foil was later used. This picture of a group of Purity Farm Products from Trenton, New Jersey was taken about 1902.

In the early twenties paper containers were introduced particularly in New York. One of the first of this type of package was this sealed cone which was used by Sheffield. The container was a single service affair and was used off and on until 1936 when it was discarded for a more advanced type.

L. B. Halsey sold the first, now famous Sheffield Farms milk in this metal capped bottle. Halsey brought milk into New York from the farm of Anna Maria Sheffield in Mahwah, New Jersey. The metal cap was hinged on one side and snapped down over a paper disc.

Shortly after the turn of the century four companies, Sheffield Farms, Slawson Brothers, Decker Company, and Sheffield Farms Co. joined forces to form the Sheffield Farms-Slawson-Decker Company. A large numeral "4" was incorporated into the bottle design to signify the merging of the four companies. The cap still remained a complicated piece of mechanism.

PACKAGE DEVELOPMENT

By PHILIP CARLING, Sheffield Farms, Inc.

The heavyweights of the 20's and 30's have given way to the lighter bottles of today. These bottles, still bearing the symbolic "4" of the four company merger, were familiar to millions of people in the New York Metropolitan area. The empty bottle weighed 24 ounces compared with the 17.5 of today's square bottle.

Present trends in milk packaging are illustrated in this picture of both paper and glass containers. The use of color on the outside of the package has given an added zest to the appearance of containers. An immense amount of work has gone into the problem of packaging milk, resulting in a container that is both cheap and efficient.

SEVENTY YEARS OF GROWTH

Milk Bottles At Forty-nine Cents Apiece, Glass Tops, Wire Bails, and Forty Ounces Characterized Containers of the Nineteenth Century

THE COMPLICATED CAPPING mechanism and the cost of forty-nine cents, which characterized the first milk bottles, stand in sharp contrast to the streamlined, efficient containers of 1948. The seventy years that have elapsed since the Lester Milk Jar made its appearance on the market followed by Dr. Thatcher's first true milk bottle have been marked by a constant evolution in containers aiming at lightness, eye appeal, efficiency, sanitation, and cheapness.

Dr. Thatcher's bottle, offered to dairymen in 1884, sold for ten cents, a decrease of 39 cents over the primitive Lester Milk Jar. The bottle met with considerable resistance because of the glass top and wire bail arrangement that, while it represented a great step forward in sanitary milk handling, required extra work on the part of the dairyman without a corresponding increase in profit.

Pioneer bottle men found that they had picked out a rough row. Any selling had to be done early in the morning when the dairyman was out on his route. In addition bottles were hand made by a glass manufacturer rather than by firms engaged specifically in making containers.

First Paper Cap

In spite of the difficulties in marketing the bottle the thing that it did for the milk business insured it a place in the industry. In 1889 the first common sense paper milk bottle cap was designed. The cap was invented by Harvey Bernhart, a partner of Dr. Thatcher. The new cap necessitated changes in the design of the milk top, but so sound were the specifications for the cap that the top it required is substantially the top that is used today on a large portion of the milk bottles manufactured.

The manufacture of milk bottles was a hand operation for many years after its invention. It was not until 1903, for example, that Glass Companies experimented with machines in the fabrication of milk bottles.

The transition from hand blown bottles to machine blown was in the nature of a revolution. Glass that worked well by hand gave considerable difficulty when machines were used. A machine known as a vacuum automatic machine was the first type of mechanical blowing device used.

The development of the machine technique, however, coupled with an ever increasing demand for containers caused the bottle manufacturing business to increase steadily. Volume was growing by 10 per cent a year and new companies were springing up. By 1920 there were two score concerns manufacturing milk bottles in the United States.

Sanitation Stressed

As the industry grew health department specifications became more rigid as the nation's awareness of sanitary considerations increased. The old vacuum automatic machines left a bad, rough cut-off place on the bottles which was both unsightly and a source of contamination. Glass companies were constantly striving for a better container developed new bottle designs and new machines for their manufacture.

The demand for more sanitary closures resulted in the cover cap which covered the entire top of the bottle to a point half the length of the finish. This replaced the Barnhart common sense plug. There was a rapid development in milk bottle closures at this time which resulted in a multiplicity of designs. The large number of designs lead the industry away from standardization until along about 1935 the industry became conscious that it was going to be necessary to develop some sort of a standardization program and the Glass Container Association, came into being.

The first quart milk bottle weighed 40 ounces. It was later reduced to 28 ounces, still later to 25½ ounces, then to 24½ ounces, next to 22 ounces, and in 1939 to 17¾ ounces.

In 1942 and 1943, while the weight remained the same, the bottle was changed to the more efficient square package. In the development of the square milk bottle, there was a great deal of engineering necessary. Bottles had to be developed which would fit into cases. Such cases must nest with the old cases which dairymen were then using for round bottles. This included quarts, pints, half-pints and half-gallons. Such cases must be made to fit the trucks in order to utilize available space in trucks. Bottles must be designed so as to work in the dairy equipment—capping, filling, washing, etc., and must be processed in the same machines which were then being used for round bottles, at the same time storing and carrying the same amount of milk in much less space. This all enabled the dairymen to do a much larger business with the same available operating space; trucks to carry heavier loads with the same body dimensions.

Decorated Package

In 1931, the demand for a more attractive package became apparent and with this came into being the pyroglaze operation. While this represented extra expense to the dairymen, the sales appeal was much greater and stimulated the sale of milk. It further aided and supported bottle makers efforts for standardization in that the glass container could then become a standard package with individuality secured through pyroglaze lettering.

What the milk bottle of tomorrow will be is anybody's guess. If the bottle industry follows the trend of its historic evolution the containers of the future will be cheaper, more efficient, and packed with a greater consumer appeal than anything that has been produced before.

PLAYING IT SAFE

Each of the major wars in our history has meant a rapidly rising general price level, followed eventually by drastically falling prices. When the general price level of the country falls, prices of farm products lead the procession downward.

Changes in the general price level have made and broken more farm people financially than any other economic factor. The individual farm family can do little about controlling fluctuations in the general price level. But keeping debts at a safe level and building up a financial reserve in U. S. Savings Bonds when incomes are good will help to cushion the drop in prices that may come later.

FIELD AND LABORATORY TESTS PROVE

VEL* REDUCES BACTERIA COUNTS

Cleans Milking Equipment Cleaner—Eliminates Milkstone!

MOST EXTENSIVE EXPERIMENT OF ITS TYPE IN THE HISTORY OF THE DAIRY INDUSTRY!

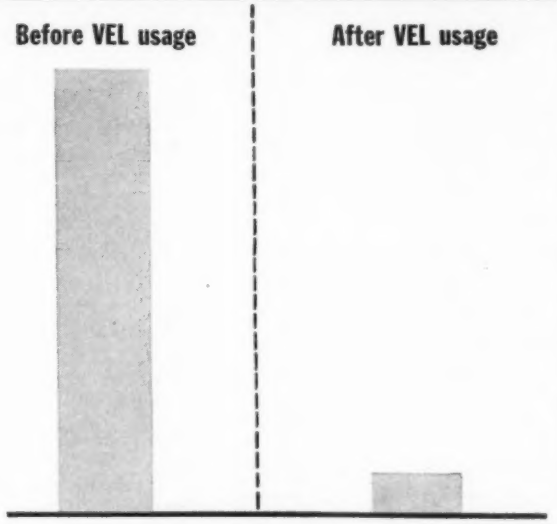
A study just released by a leading independent laboratory proves that high bacteria counts caused by inadequate cleaning methods can easily be reduced. By cleaning milking equipment more thoroughly and eliminating milkstone, Vel, a neutral monoglyceride detergent, drastically reduces total and thermoduric counts.

For this experiment, the laboratory selected a group of shippers whose consistently high counts were the result of poor milk-handling techniques. These techniques were corrected and standardized so that the only variable in the milk-handling routine was the way in which the equipment was cleaned. Half the shippers cleaned with Vel. The other half cleaned their milking equipment by any method they preferred except with Vel and the VELocity method.

VEL AND ONLY VEL OFFERS THIS PROOF!

As shown on the chart (right), the results of this experiment prove the efficiency of Vel in reducing bacteria counts. On the farms where ordinary cleaning methods were used, the bacteria counts remained high. Where Vel was used, the bacteria counts, in every case, were reduced drastically from their former high level. Vel is not a bactericide, but is a wetting agent of the type recommended by many agricultural schools.

AVERAGE WEEKLY TOTAL AND THERMODURIC COUNTS ON TESTED FARMS



Total and thermoduric counts were dangerously high when milking machines were cleaned by ordinary methods. Counts dropped dramatically when shippers cleaned with Vel.

FREE!
Full account of VEL experiment

Write Vel, Dept. M-645, Jersey City 2, N. J. Ask for a copy of the 38-page report, "Wetting-Agent Cleaning of Milking Machines and its Effect on Total and Thermoduric Levels of Night and Morning Milk," by the New Jersey Dairy Laboratories.

AND VEL CLEANS SO MUCH FASTER... EASIER!

Vel is so much faster and easier to use that now, for the first time, it is *easy* for busy farmers to keep their milking equipment really clean, and improve the quality of their milk.

Vel flushes out the milk fat and milk slime; so brushing is cut to the minimum. In less time, with less work ... Vel gets milking machines, separators, pails, cans, strainers, and churns cleaner than they've probably been since they were new.

* VEL is the trade-mark of the Colgate-Palmolive-Peet Co., Jersey City 2, N. J.

LETTERING MILK BOTTLES

Colored Lettering on Containers Has Achieved Wide Popularity in the Space of Fifteen Years—Variety of Techniques Employed by Manufacturers

By **A STAFF MEMBER**
Owens-Illinois Glass Company

FEW DEVELOPMENTS IN GLASS packaging, since Michael J. Owens produced the first automatic bottle blowing machine around the turn of the century, have made such rapid progress or gained such wide popularity in a short time as has the Applied Color Lettering process, commonly known as ACL.

Starting in the early Thirties, practically from "scratch" in so far as the production of ACL for commercial use was concerned, decorated glass milk bottles have climbed steadily in popularity, in spite of the fact that output was restricted during four years of war by acute shortages of both raw materials and skilled labor. At the present time ACL is continuing its rapid climb in popularity.

Applied Color Lettering is the name given to the process of applying colored letters and designs to ordinary glass bottles. The color is a leadborosilicate glass melting at a somewhat lower temperature than flints, amber or green glass used for bottles. The colors have various oxides, salts, or other mineral pigments.

In the preparation of these glasses the pigments are ground very fine in paint mills until they form pastes. The pastes are applied to the base glass through silk, or, more recently, metal screens which carry the designs.

Good Reasons for Popularity

Obviously any development which has gained such wide-spread acceptance as has the ACL process in a period of approximately 15 years must have good and sufficient reasons for its popularity.

What started out as a method of applying permanent lettering and decorations to milk bottles was so successful in the dairy field that the process was next applied to beverage bottles. Today ACL decorated bottles are used in many other fields in addition to the dairy and beverage industries.

For users of returnable bottles, such as those used for dairy products, there are a number of specific advantages. In the first place, ACL provides an attractive, permanent label which with ordinary usage will remain during the lifetime of the bottle. In a highly competitive market ACL bottles have special merchandising value, because decorated bottles have greater eye-appeal for customers and thus increase sales.

The use of silk screen designs for applying lettering and decorations in color to paper and other materials goes back many years. The printing trades, for example, have utilized the silk screen process for many years. A method similar to that used by the printing trades was often employed in creating lettering and designs on felt pennants, such as those which used to be so popular at all college football games.

Originally a Hand Operation

In the early days ACL was strictly a hand operation and necessarily somewhat crude. The lettering or design was actually hand cut from special paper with the gelatin backing ironed on to the silk screen.

The application was one color on one panel with the operator pulling the screen across the bottles by hand. There was merely a jig fixture which held the bottle and a hand operated squeegee which pressed the ceramic composition through the screen and on to the bottles. At that time one small three-foot lehr was used in "firing" or fusing the color to the bottles.

Later an improved, but still hand operated, machine was developed and installed at the Owens-Illinois Huntington plant. In 1934 an ACL operation to decorate milk bottles was started in the plant at Columbus, Ohio.

By 1935 the photographic method for making ACL screens was introduced and gradually replaced the older method of cutting out screens by hand. In the meantime ACL decorations for milk bottles gained steadily in popularity, so that by 1938 nearly one-third of all the milk bottles produced by one glass company were in this category.

The year 1937 also marked the development and installation of duplex or combination body and shoulder application machines at the Fairmont, W. Va., plant. By 1938 there appeared a completely automatic ACL decorating machine that would put two colors on both the body and shoulder in one operation.

Changes with Square Bottles

The introduction of square milk bottles necessitated some new developments and modifications in the type of decorating machine used to handle this ware, an operation which was successfully performed and which permitted the streamlined square bottle to be produced with all the added advantages of ACL decorations.

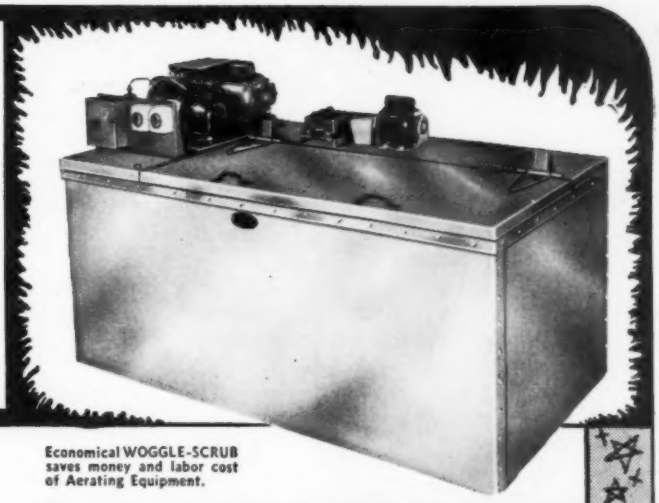
It is noteworthy that the original crude, one-color application has since developed into three-color applications used in various glass plants throughout the country.

The first step in developing an ACL

The first step in developing a design is the preparation of the art work. This group of artists are engaged in making drawings from which positives will later be made.

MORNING MILK—

COOLED FOR DELIVERY IN 30 MINUTES...



Economical WOGGLE-SCRUB saves money and labor cost of Aerating Equipment.

GONE are the days when dairymen had to mix their night and morning milk — wait an hour or more for it to get cold enough for delivery — or, hold it over. Now, they just fill the cans, and WOGGLE-SCRUB automatically brings the morning's milk down to a uniform temperature of 44 degrees in 30 minutes. (See temperature-drop chart at right.)

Here's how it works....

This rapid cooling is made possible by an exclusive WOGGLE-SCRUB feature — a metal interior cradle (called the WOGGLER), mounted on four stainless steel ball-bearing supports and surrounded by ice-covered coils. An electric motor impells the WOGGLER in a circular pattern — agitated water, refrigerated by scrubbing against ice-banks on all four sides of box, chills the walls of the milk cans — and all milk in the cans, even to the core, is impelled to gently scrub and rub against the cold surfaces of the cans. Within half an hour the full milk load has reached a uniform, safe temperature.

Why Dairymen need it...

You don't have to watch the WOGGLE-SCRUB — or use an aerator — or stir the milk — or periodically remove the can-covers (hence a lower bacteria count) . . . Just place the cans in the cooler as they're filled, and WOGGLE-SCRUB does the rest — quicker and cheaper . . . There's no other Milk Cooler like it — not one with its exclusive features . . . Wire or write for details.

★ DEALERS, too, should wire or write for details — should investigate the profit possibilities of this entirely different Milk Cooler. Wire or write TODAY — stating what territory you could cover.

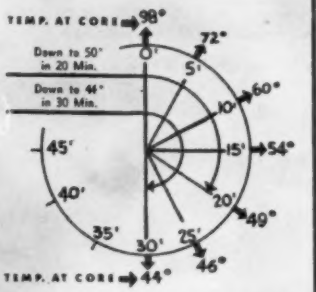


Chart of an actual test of WOGGLE-SCRUB as witnessed by Health Dept. Officials . . . Test any other cooler . . . Compare!

Accommodates 1 to 6 ten gallon cans or 1 to 9 five gallon cans or combinations of both.

Agitated milk bathes against cold surfaces of cans refrigerated by agitated water.

(2 Ice Bank on Four Sides) → (Cools Agitated Water) → (Which Cools Agitated Milk)

WOGGLE-SCRUB
Circulating Milk Cooler
manufactured by
THE WARREN COOLER CORPORATION
P. O. Box 873 -D Atlanta 1, Georgia

RAPID MILK COOLER
WOGGLE-SCRUB
MANUFACTURED BY THE WARREN COOLER CORPORATION ATLANTA

Shown here in operation is a process camera for copy designs. Positives are photographed from art work, the process reducing the draw to the actual size needed for application.

design is the preparation of the art work.

A separate drawing is necessary for each color in each front and back body or shoulder design. These are all drawn twice size, not only to eliminate imperfections but to make them faster and easier.

ACL positives are then obtained by photographing the art work, which reduces the drawing to the actual size wanted. These positives are on clear film rather than on glossy paper like that used for regular photographs, since these are used by the plants in making the ACL screen.

ACL prints are made by mounting positives on tracing paper and exposing on sensitized black and white paper. These prints are sent to branches for customer approval and filed for record purposes.

Screens Made from Swiss Silk

ACL screens are made from special Swiss silk or fine wire mesh screen mounted on a frame. In most cases today a fine mesh, stainless steel screen material is used in place of the traditional silk because of the greater strength and durability. The mesh is attached tautly to a steel frame, which becomes an integral part of the screen throughout its use.

The longevity of a screen varies according to the type of bottle, size or design, condition of decorating machine and other factors. A separate screen is required, of course, for each color in the design.

Before metal screens are used, they are conditioned to receive chemicals and are then impregnated with a gelatin solution which serves to close up the mesh in the screen.

In transferring the ACL design to the screen, the positive is first positioned properly on the screen and then exposed to an arc light. The intense light "bakes" the gelatin that is not covered by lettering and design in the positive.

The screen is then immersed in a solution which washes out the "unbaked" gelatin from the mesh, leaving the lettering and design "open" so the paint can go through.

Just as machine and other equipment used in applying ACL decorations to glass containers have been the objects of constant development and improvement, so has continual research and experiment improved the quality of the ceramic colors used in the ACL process.

Colors Were a Problem

Some of the major problems that had to be overcome in the preparation of efficient ceramic colors were: (1) Colors that would remain bright and sparkling after being "fired" in the lehr and that would retain their natural brilliance after repeated exposure to caustic washing solutions; (2) Colors that would have the proper smoothness and consistency to pass through screen designs without clogging.

Leaders in the development of ceramic colors have been B. F. Drakenfeld & Co., Inc., the Electrochemicals Department of E. I. du Pont de Nemours & Co., and the Harshaw Chemical Company.

The ceramic coloring material is received at the glass plants in the form of a powder. This powder is first placed in a drier to take out any possible moisture. The presence of moisture in the color would be likely to result in a loose or incomplete union of the coloring material with the bottle.

The powder is then mixed with "squeegee" oil to a proper fluid consistency that can be handled readily by the squeegee of the printing machine.

The Decorating Process

If more than one color application is involved in the operation, it is necessary for the containers to go through a small gas fired drier in order to dry the color suffiicently for the second color application. Temperatures in the drier range from 200 to 300 degrees F., depending upon the size and shape of the ware being decorated. The procedure is repeated if a third color application is desired.

As the ACL ware reaches the end of the decorating line, labels are carefully inspected by trained selectors who check register, proper heaviness of color, design lineup and other factors. Any bottles not meeting rigid specifications are instantly rejected.

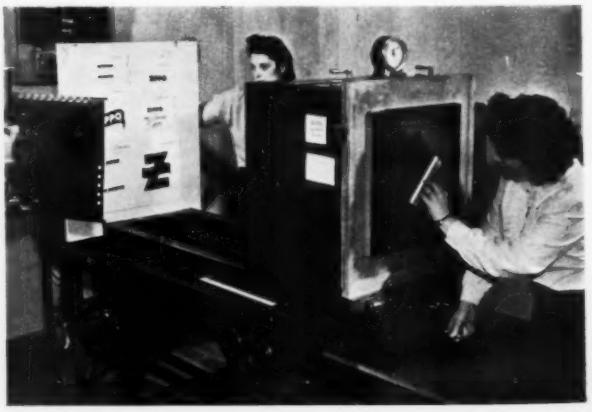
Bottles are then placed in the decorating lehr which gradually builds up to a fusing temperature. Maximum temperatures in the decorating lehrs vary from 1150 to 1400 degrees F., depending upon the size and type of glassware involved in the operation.

Since the ceramic paint used in the ACL process is 90 per cent glass, the heat of the lehr "fires" it so that the design actually becomes a part of the glass container, without affecting the container itself.

The fusing stage is reached when the containers are about two-fifths of the way through the lehr, after which the temperature is gradually diminished until the containers reach the other end of the decorating lehr at little more than room temperature. Approximately two hours are required for the trip through the lehr.

After glass containers emerge from the decorating lehr they receive a second inspection and are then ready to be packed for shipment.

The use of colored lettering has eliminated the need for molding dairy firm names into the bottle itself and has added immensely to the attractiveness of the package. A wide range of designs have been used on the bottles covering subjects as widely different as milk promotion and traffic safety campaigns.



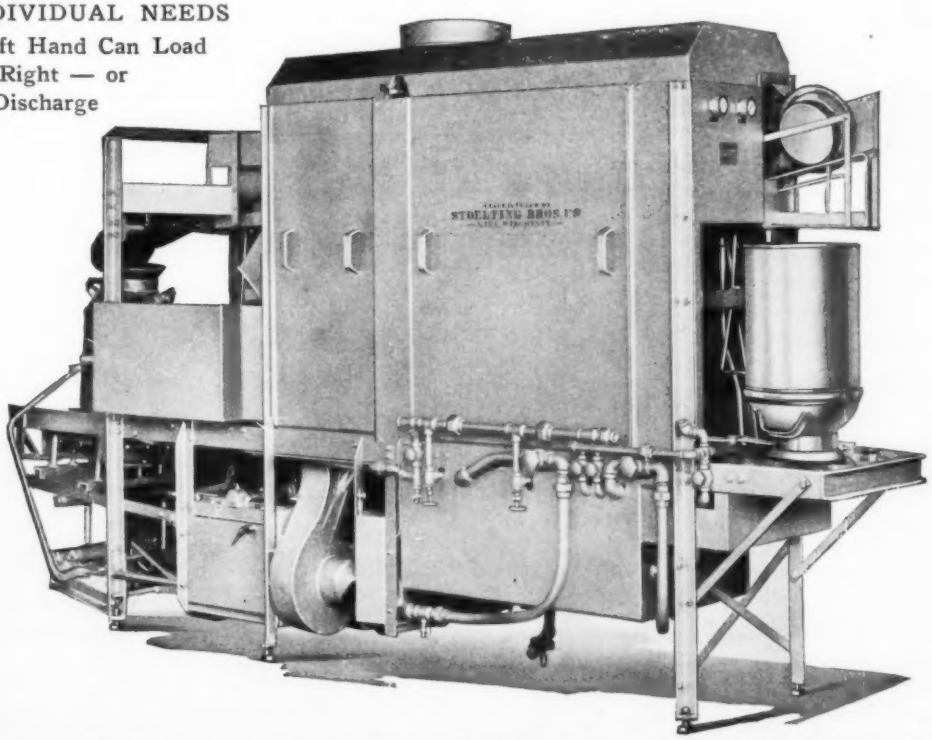
A lantern projector enlarges the original drawing and makes it easy to copy. Separate drawings are necessary for each color in each front and back body or shoulder design.

OK... it's a STOELTING WASHER!

SIX CANS PER MINUTE FOR ANY DAIRY . . .
The Stoelting Straightway Washer is engineered for increased economy in lower water cost, greater efficiency in every operation and longer life. Every feature you'd expect to find in washers costing far more money you will find in the Stoelting Washer and yet the Stoelting Washer is the lowest priced of all comparable washers on the market. The Stoelting is the only machine that washes every size of can equally well regardless of the size of the can. Cans and covers receive four thorough washings and emerge together with cover on can to protect the sterile interior. Other exclusive features.

Lower Initial Cost
Lower Water Cost
Lower Maintenance
Trouble Free Automatic Timer
Sterile Pre Rinse
Divided Wash Tanks

DESIGNED TO FIT
YOUR INDIVIDUAL NEEDS
Right or Left Hand Can Load
Straight — Right — or
Left Angle Discharge



Write Today for Complete Information 4cpm Left Hand Can Load — Right Angle Discharge Shown

STOELTING BROTHERS CO. KIEL WISCONSIN

UNIVERSAL BOTTLE IN COLUMBUS

Fourteen Years of Operation Has Demonstrated Economy of Plan in Ohio's Capital City — Use One Bottle For All Wholesale and Retail Business

By **WARD K. HOLM**

Secretary, Columbus Milk Distributors Association

IN RECENT MONTHS the Columbus Milk Distributors Association has had a number of requests for information concerning the operation of its universal milk bottle plan. This is understandable since all milk dealers are experiencing continued rising costs and consequently all are seeking possible means of cutting costs.

Although supply and labor account for a large percentage of the total cost, in producing a bottle of milk, the container cost is a very important factor. We find there is a greater variation among dealers in this cost factor than in any other. Surveys have shown a range of from .06 of a cent to over 1 cent per unit filled which is from .3% to 5% of the total cost.

The cost, during 1947 in Columbus, where the universal bottle plan has been in operation for over fourteen years, was low enough in this range to demonstrate the economy of the plan.

What affects container costs? The main factors are:

1. The original cost of the container;
2. Number of times container is used;
3. Deposit on bottle if not returned;
4. Time consumed sorting foreign bottles;
5. Expenses involved in getting strayed bottles back.

There is no doubt that the universal bottle system effects the greatest savings in each of these.

This plan can be adopted in a market where a majority of the dealers use one type bottle in common, such as the store bottle in many markets today. In the Columbus market there is just one bottle for all wholesale and retail business. In most universal bottle plans the bottle is owned by an association of the dealers and the bottles are leased to the members as they are currently needed. Frequently an already existing bottle exchange forms the nucleus for such an organization.

Change-over Must Be Planned

The big problem in adopting the universal bottle system is the change-over from the old type bottle to the new. There are several things to keep in mind in making the change:

1. Plan and organize the change well in advance of the actual change-over.
2. Familiarize employees and consumers with the plan and the advantages of the new bottle.
3. Have an adequate stock of new bottles.
4. If an instant change is made a market should be secured for the old bottles.

There are many different plans for financing the universal bottle plan, but in the Columbus market the dealers lease the bottle from the association at the manufacturer's list price. In other plans less is charged per gross of bottles used and the balance is obtained through a fillage fee or some other proportionate charge.

The Columbus plan works well because the charge per gross of bottles is high enough to make each dealer strive for the most efficient use of the bottle and, consequently, he is continually seeking a minimum breakage of and maximum return on all bottles.

Several reasons for the low bottle cost experienced with the universal bottle plan are:

1. When all the dealers are using the same bottle, it is possible to purchase the bottles in larger quantities and thus obtain a lower price. This saving amounts to from 65 cents to over $4.00 per gross, except for dealers who already are

(Please Turn to Page 75)

Dairy Daze

By Edgar Allen, Jr.

Quality...

changes mere
CONSUMER ACCEPTANCE
into
CONSUMER PREFERENCE

The term "Consumer Acceptance" went out with the seller's market. Today a concentrated milk product that is "merely acceptable" has no market. That is why the sales conscious producer is also quality conscious. He relys on the BUFLOVAK DOUBLE EFFECT evaporator to inject preference creating flavor, color and uniformity into his condensed and evaporated milks. And he knows that Buflovak, and only Buflovak gives him this competition defying quality at low cost. A 99.9+% solids recovery, 50% saving in steam and cooling water, all round economy in time and labor, simplified sanitation plus the all important assurance of consumer PREFERENCE for YOUR product make the Buflovak America's outstanding evaporator.

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THE BUFLOVAK ROLLER DRYER

Profit in flexibility. Be prepared to meet any conceivable market demand by supplementing your Double-Effect Evaporator with a low cost, efficient Buflovak Roller Dryer for drying whole milk, skim milk and buttermilk.

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THE USE OF FAT FREE MILK

Virtues and Problems of Skim Milk Are Discussed by Dr. C. P. Segard at Waukesha Convention of American Association of Medical Milk Commissions

By **LUTHER KOHR**

"FAT FREE MILK AS A Special Dairy Product," was discussed at length by Dr. Christian P. Segard, Medical Director of the Wisconsin Alumni Research Foundation, before the annual convention of the American Association of Medical Milk Commissions, Inc., at Waukesha, Wisconsin, June 18 through June 21.

Dr. Segard stressed the valuable proteins available in fat free milk and urged that the physicians and scientists who create the rules for the production of Certified Milk do some pioneering with the nutritive content of milk just as they had done with bacterial content many years ago. He suggested the fortifying of fat free Certified Milk with 4,000 U.S.P. units of vitamin A and 400 units of vitamin D.

Since the Certified Milk rulemakers were the first to authorize use of vitamin D some years ago, there was no need to amend the *Methods and Standards for the Production of Certified Milk* insofar as vitamin D was concerned, but before the convention adjourned the House of Delegates gave official approval to the addition of vitamin A to fat free Certified Milk. The potency was left to the judgment of each local Medical Milk Commission, pending a decision by the American Medical Association Food and Nutrition Council as to the amount of units of vitamin A that should be added. It will be necessary for Certified Milk producers to show on their bottle caps, the amount added.

Brook Hill Farms of Genesee Depot, Wis., and Chicago, has been producing fat free Certified Milk for more than three years. Howard T. Greene, president, told the convention that this type of milk not only appeals to women who are interested in their weight, but that the physician in charge of a new-born nursery in Chicago has been requiring it for the formulas of all babies who cannot be breast fed.

Mr. Greene phoned his hood company and ordered new hoods just as soon as the approval to vitamin A was given. He will be the first Certified Milk producer to market the new product. Walker-Gordon Laboratory of Plainsboro, N. J., Henry W. Jeffers, Sr., president, and Wern Farms of Waukesha, Wis., Homer and Chester Williams owners, were among other producers to announce they would market fat free Certified Milk with vitamins A and D added.

In his address, Dr. Segard declared, "Without milk or milk products, it is impossible to get an adequate diet. The quart a day of milk for everyone, which is the goal of the health agencies, need not of necessity be whole fluid milk. There are twenty-two milk products from whole milk to whey."

Pointing out that milk is one of only two simple foods that can be eaten daily without "losing a taste for it," Dr. Segard said that the purchase of milk should be on the basis of nutritional value.

He cited the baking industry for recognizing the nutritional value of skim milk and said because of the proteins, vitamins, minerals and sugars it contains, there is no question but that it can be used for human consumption.

"The problem is whether it can secure the backing of a qualified group in the milk production industry where its quality will be guaranteed," Dr. Segard stated. "The answer to that problem may quite easily be this group which has set and maintained the highest standards for milk in the past; this group that has produced Certified Milk.

Dr. E. T. McEnery (extreme left) new president of the American Association of Medical Milk Commissions with (left to right) Dr. J. Guerney Taylor, Milwaukee; Dr. R. C. Ferguson, Chicago and Dr. G. S. Kaufmann, Chicago.

"Successful treatment of epidemic diarrhea and other intestinal conditions has been accomplished by resorting temporarily to fat free or boiled fat free milk. In the celiac syndrome it is vital to exclude fat. Premature infants need the additional growth factor proteins. Such conditions as fever, hemorrhage, hyperthyroidism, wounds or burns, liver diseases, shock, cancer, indulent ulcers of various types, certain acute illnesses and where there is loss of protein through the kidney as in chronic nephritis, are all types of illness that require additional growth factors.

"It is also true in some types of anemia, in pregnancy and lactation, degenerative disease, arterio-sclerosis and in the aging process. These groups need additional protein. Low cholesterol, low fat diets are frequently required in the early sclerotic and aging person. Frequently there is a need to temporarily or permanently supplement an enforced substandard diet by addition of protein. There is sometimes, as in the aged, a need for a rise in protein without the increase in the fat intake. This is particularly true in debilitating disease. In the Holland experiment, it was shown that an increase in calories from fat or protein only was not always satisfactory. Sugar was beneficial in this special diet. It is present in the fat free milk.

"The medical profession has for some time been making an effort to lift the protein intake of the above groups. It has been done by the use of protein hydrolosates; some from milk and some from other sources. It would seem therefore wise to consider fat free milk as a source of protein for these groups and it would further seem wise that the Certified Milk group might well produce this product.

"The one important point to keep in mind in the use of fat free milk is that fat-soluble vitamins should be supplied. Of the four fat-soluble vitamins, two of them are required in amounts so much larger than the other two that it would seem wise with the increased use of fat free milk that these two vitamins be used to fortify this product. These vitamins are A and D. It would seem unnecessary at this time to con-

PROTECT MILK

"from top to bottom . . . it's BETTER"

with FRIGIDWALL SAN-I-TANK

Cooling

Storing

Processing

The advanced design of the modern Frigidwall San-I-Tank economically combines the functions of cooling and storage into one tank. Frigidwall also eliminates the need for special cooling units and extra storage tanks — conserving floor space and speeding up dairy operations.

Milk is piped directly from the weigh tank into the Frigidwall San-I-Tank where it is immediately cooled and held at the desired temperature until drawn off for pasteurization. The efficiency of the Frigidwall cooling unit and large tank capacity permits continual use and safe, low temperature storage for long periods.

The practical tank construction of Frigidwall features a smooth, highly polished, self-draining, stainless steel interior. A special high pressure jacket welded to the tank lining provides "flooded surface" contact with the tank interior for maximum cooling effect. Lifetime insulation is formed by a combination of sealed cork and fiber glass. Exterior tank wall is made from durable heat-treated carbon steel or polished stainless steel. Tank capacities hold up to 3000 gallons.

All Frigidwall parts and fittings are easily removable for fast, thorough cleaning in accordance with Sanitary regulations. Top or end entering agitators are optional.

Write today for complete information on the Frigidwall San-I-Tank. Ask for the Milk Tank Storage Bulletin.

STAINLESS STEEL SAN-I-TANKS

SERVING THESE INDUSTRIES: BEVERAGE • MILK • FOOD • DRUGS • CHEMICALS • COSMETICS

METAL GLASS PRODUCTS COMPANY

GENERAL OFFICES BELDING 2, MICHIGAN

sider the other two; namely, vitamins E and K. It is important that vitamins A and D be present in optimal amounts.

"The standard requirements for vitamin A through increased knowledge of its usefulness has been placed at a much higher level than was formerly considered necessary. One reason for this is the fact that there are wide variations in the ability of the human organism to convert pro-vitamin A to vitamin A. Another factor is the wide variation in the amount of vitamin A used in work where continued sharp vision is required. Since this fat free milk is useful in many conditions where there is disturbed metabolism, a high vitamin A fortification should be considered. As to vitamin D, it must be remembered that no food as ordinarily used today supplies vitamin D unless it comes to us through fortification. We therefore reach the conclusion that vitamins A and D are the desirable vitamins to add to fat free milk. This product will show a wider use as standardization of fat free milk because of further interest to the Medical Milk Commissions."

In concluding his remarks, Dr. Segard predicted that fat free milk, especially with vitamins A and D added, as soon as physicians, producers and milk dealers educate the public as to its beneficial qualities, will have a wider field of usefulness than in paint, billiard balls, fiber board and the feed of pigs and chickens.

The Certified Milk Producers' Association of America, Inc., met at Waukesha at the same time as the American Association of Medical Milk Commissions. Both associations elected officers and decided to meet next June at Atlanta, Ga. The Certified Milk Producers also will meet in the fall during the Milk Industry Foundation convention at Atlantic City.

The results of the elections of officers follow:

American Association of Medical Milk Commissions, Inc., President, Dr. E. T. McEnery, Chicago; Chairman of Council, Dr. J. Howard Brown, Baltimore; new Council members, Dr. Brown and Dr. C. W. Bonynge, Los Angeles; secretary-treasurer, E. P. Brown, Louden Hill Farms, South Montrose, Pa.

Certified Milk Producers Association of America, Inc., President, Robert B. Price, Price's Creameries, Inc., El Paso, Texas; vice-president, Chester D. Williams, Wern Farms, Waukesha, Wis.; secretary-treasurer, E. P. Brown, Louden Hill Farms, South Montrose, Pa.; Board of Directors, Mr. Brown, R. L. Mathis, Mathis Certified Dairy, Decatur, Ga.; Roger W. Jessup, Roger Jessup Certified Dairy, Glendale, Calif.; J. Cason Ives, Ives Certified Dairy, Ojus, Fla.; James Maverick, Sunshine Dairy, San Antonio, Texas.

Luther A. Kohr was re-elected executive secretary of both associations.

The Joint Operating Committee chosen by the two associations is composed of: A.A.M.M.C., Dr. Brown, Dr. Bonynge, Dr. Thurman B. Givan, Brooklyn; Dr. Irving J. Wolman, Philadelphia, as members, and Dr. A. N. Thomson, Brooklyn, and Dr. Robert O. DuBois, New York City, as alternate members; C.M.P.A.A., Mr. Brown, Henry W. Jeffers, Sr., Walker-Gordon Laboratory Company, Plainsboro, N. J.; Howard T. Greene, Brook Hill Farms, Genesee Depot, Wis., and Chicago, as members, and Mr. Price and Howard W. Selby, Walker-Gordon Laboratories of New England, Boston, as alternate members.

A Nutrition Planning Committee was also appointed. It is composed of the following: A.A.M.M.C., Dr. Bonynge, Dr. Thomson, Dr. Wolman, Dr. J. Gurney Taylor, Milwaukee, and Dr. E. T. Wyman, Boston, and C.M.P.A.A., Mr. Brown, Mr. Jeffers and Mr. Greene.

Other convention speakers were: Dr. Tom D. Spies, Director of the Nutrition Laboratory, Hillman Hospital, Birmingham; Dr. Paul H. Phillips, Department of Biochemistry, University of Wisconsin; Dr. John P. O'Neil, Chairman of the Committee on Nutrition, Chicago Medical Society, and Dr. E. T. Berman, Veterinary Science Department, University of Wisconsin.

From left to right, Robert B. Price, newly elected President of the Certified Milk Producers Association; Chester D. Williams, Waukesha, Wis.; Howard T. Greene, Chicago and Dr. Christian E. Segard, Medical Director, Wisconsin Alumni Research Foundation.

Fred Pabst, famed Milwaukee brewer and outstanding breeder of Holstein pure-bred cattle, who is a member of the Certified Milk Producers' Association, entertained approximately 175 delegates, their families and guests at a garden party at his home on Oconomowoc Lake. During the afternoon, there was a program in charge of Chester D. Williams, of Wern Farms, Waukesha, who is the newly elected vice-president of the Certified Milk Producers group. Mr. Williams called upon more than a dozen prominent dairy people who were guests at the party, for remarks. Among those asked to speak was Howard W. Clapp, famed herdsman at the Pabst Farm. Less than twenty-four hours later, Mr. Clapp was stricken with a heart attack and died suddenly.

•

Dairy Production Continues to Lag

Dairy production is continuing to fall behind the demands of the nation. The trends of the last several months to cull the dairy herds, leave the dairy business all together or shift to types of farm production other than dairying, is continuing to the detriment of dairy production.

This trend comes at a time when the outlook for immediate and future income for farmers was never brighter.

It was recognized by the President's Joint Economic Committee of Congress that "In view of the growing population and expanding income, we should seek within a decade to raise agricultural production about 10% above present levels. This would mean that crop production would be about 25% and livestock production nearly 50% above pre war levels."

This, plus the high wage scale in the U. S. today with the resultant increase in demand for dairy products, and renewed demands for foreign export under the appropriations given for the recovery of Europe, make the picture for the dairy farmers much brighter than it has ever been before.

As added proof, it can be statistically shown that in 1947 the birth rate was the highest on record, 26.2 per thousand compared to a pre-war birth rate of 18. This added four million new customers for dairy products in 1947 alone. The increase in population has been births over death—losing non-milk drinkers and gaining milk drinkers.

Therefore those now in the dairy industry and any who contemplate entering the business can look at the future as well as the present with a good deal of optimism.

COLD AIR DRYING WITH DAMROW CAN WASHERS GIVES YOU DOUBLE ADVANTAGES...

CLEANER, PURER CANS • • • LOWER COSTS

Damrow Straightline 6 BP Washer — 6 cans and covers per minute.

Bacteriological tests of milk cans washed in Damrow Can Washers — (any size from 4 to 14 cans per minute) invariably show the count far better than best health authority recommendations. And the surprising fact is that cleaner, sweeter, drier cans are delivered from the Damrow at consistently lower costs.

There are many reasons for this: highly efficient, powerful and thorough washing and steaming stages, simple, easy operating mechanism, unique construction features. But one of the most important is Damrow FORCED COLD AIR DRYING. Cans, still hot from the washing cycle, receive a powerful blast of cold air that takes every bit of odor and moisture out. Cans are bone dry, free from bacteria. They cannot sweat, rust, or develop black spots and bacteria. In addition, COLD air drying means a saving of almost 50% on *steam consumption,* as well as water and power . . . a worthwhile advantage in itself.

Prove DAMROW CAN WASHING advantages in your plant! Speed up your can washing — get cleaner cans at lower cost. Get the complete story now!

Check, Return the Coupon for details on DAMROW Modern Can Washing Efficiency . . .

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Please send us complete information on Damrow Can Washing with Cold Air Drying. Capacity, about..... cans per minute.

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THE CORRESPONDENTS REPORT

MINNESOTA

By VIRGINIA BEALS

THE GREATEST PROBLEM facing Minneapolis-St. Paul dairy people in mid-July is the prolonged heat and the lack of rain. The Twin Cities and a radiating area within 100 miles has been called a drought island. The resultant effect on the dairy farmer is serious for alfalfa production is down one-third and the entire hay crop is set back. A few scattered rains have raised prospects for the second hay crop, but as a whole, farmers fear feed grown on their own land will not be sufficient to tide them through the winter. If they're forced to buy additional hay, producers look for higher milk and dairy prices next winter.

The Twin City Milk Producers Association reports that production is 12 per cent below that of last year, and it is believed that production will not pull out of this slump for the remainder of the year. In southern Minnesota and other areas beyond the periphery of the Twin Cities as well as in neighboring Iowa and Illinois milk production has not been as adversely affected.

There are other contributing factors to present lowered milk production. In Minnesota, as in other parts of the country, farmers have been attracted by high prices offered on the South St. Paul, Kansas City and Chicago markets and have tended to convert marginal cows, which often amount to 10 per cent of a dairy herd, from dairy producers into beef cattle.

Another problem Minnesota shares with other states and one that retards milk production is the shortage of dependable help which will stay on the farm and the reluctance of even good workers to be tied down seven days a week. The fact that many farmers have abandoned dairying in favor of raising grain and wheat is in part responsible for local as well as country-wide shortages of dairy cattle.

Some local dairy men supplement the statement of lowered milk supply with the reminder that late July and August are normally less productive months in Minnesota. Insects, at their most active during midsummer's heat, pester the cows and keep them from necessary rest. This condition, together with dry pasturage is reflected at milking time.

The University of Minnesota reports an encouraging factor to overall milk production in the increased prevention and treatment of mastitis, which has been a serious weakness of the dairy industry. Through educational programs and publicity farmers are becoming more and more aware of what can be done in the way of prevention and are doing a better job of holding mastitis in check. They recognize that although penicillin has contributed much to the treatment of the disease, prevention lengthens productivity of the animal, and that the better the health of the herd, the higher the income.

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NEW ENGLAND

By JEFF STERNS

AS OF JULY FIRST, MILK went up one cent a quart for residents of New Bedford, Mass., Cape Cod, Martha Vineyard and Nantucket.

Cecil Ford, manager of the New Bedford Milk Producer's Association made the announcement of the rise in price several days before it took effect after dealers were notified they would have to pay a like increase.

At first it was hoped that consumers would not be affected by the increase in wholesale, but there seemed to be no other way for dealers to absorb the rise except through adding it to the cost to the consumer.

Before the increase, householders were charged 22½ cents per quart. The additional cost was placed on the dealers by the milk producers with no explanation save that it was necessary in order to meet the rising tide of living costs.

This new increase also comes at a time when people are in the habit of seeing the price of milk drop off a penny. The average housewife, when interviewed, expressed surprise at the increase with the words: "But usually in the summertime milk is reduced."

Asked as to what made them believe this they smiled, declaring they always thought the cows which gave the milk got more green grass to eat in the summer, and therefore gave more milk, allowing the farmer (dairyman) to be able to reduce his price so that it could be handed down the line to the consumer.

The new price for each hundredweight to producers will be $6.97 in the New Bedford area, which is practically saying the southern portion of Massachusetts. The same advance, which is a jump of 44 cents for that level, has been announced for the Lowell, Lawrence, Mass., area, Mr. Ford said.

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OHIO

By ROBERT KANODE

COLUMBUS, OHIO—MAY'S AVERAGE price paid for whole milk at the 21 principal Ohio markets was reported as $4.79 per hundredweight—14 cents less for fluid milk than the April figure.

However, the Federal-State Crop Reporting Service pointed out that the figure of decrease between the same two months in 1947 was 40 cents. The May price is the highest on record for that month.

Producers delivering to the Ohio milk manufacturer plants received an average of $4.05 per hundred pounds for 3.5 percent milk. This figure was only two cents less than the April average and also was the highest on record for the month.

Fluid milk markets received a total of 219,000,000 pounds of milk in May from farmers—a 12,000,000 pound increase over May, 1947 while Ohio manufacturers received 190,000,000 pounds, up 2,000,000 from the same month a year ago.

Creamery butter produced in Ohio during the month totaled 6,150,000 pounds, an 80 percent increase over April and for the first time since July of last year was above the same month a year previous.

Estimated Ohio crop yields are also on the uptrend for this year's harvest, the indicated yield per acre, and the estimated production being as follows:

Corn, 3,657,000 acres, 54 bushels per

acre and 197,478,000 bushels.

Wheat: 2,353,000 acres, 26 bushels per acre and 61,178,000 bushels; Oats 1,202,000 acres, 42 bushels per acre and 50,484,000 bushels.

With the month of June proclaimed as "Dairy Month" in Ohio, Mayor James A. Rhodes of Columbus, the capital city, signed a proclamation asking all residents of the city and state to fittingly observe the month in order to increase appreciation and consumption of dairy products "to the end that our standard of health may be improved."

Photographs of the mayor appeared in the daily papers, picturing him with Mrs. Nancy Howe Michael, director of the Columbus Milk Council.

The local observance will feature the selection of a "Dairy Queen" by the Columbus Junior Chamber of Commerce from girl candidates enrolled through entry blanks distributed by dairy firms through their delivery men.

The American Jersey Cattle Club ended its 80th annual meeting in Columbus early in June after electing E. S. Brigham, St. Albans, Vt., former congressman and Vermont agriculture commissioner as its president.

Dr. Brigham succeeds Herman F. Heep of Austin, Texas, who declined re-election after serving two terms.

Floyd Johnston, executive secretary, told more than 250 members from 26 states and Canada attending the one-day meeting that the club's activities reached a new peak during the past year with a membership of 3,324, a gain of 127 percent since 1940.

Texas has the most members with 283 enrolled while Ohio is a close second with 274. A total of 244 new members were added during the year.

There are more than 61,000 Jersey owners on the active breeder's list with 50 percent of them having been added during the past year, Mr. Johnston reported.

The club recorded 81,123 registration applications and 58,708 animals were transferred, both being new records.

During the year the U. S. lifetime championship butterfat producer title was taken away and regained by the Jersey breed, he said.

Plans are being made by the club to have a new office building in Columbs in the next five years, retiring president Herman F. Heep told the members. The club has purchased a building on E. Broad St. across from East High School which is serving as temporary headquarters.

Guy H. Miller, 76, Modesto, Calif., a Jersey breeder for 52 years was presented the Master Breeder Award while William R. Tate, Guntersville, Ala., was awarded the President's Cup for the production record of his Sparkling Sir's Bamboo 1358061, which completed a record of 14,959 pounds of milk and 909 pounds of butterfat in 305 days of twice daily milking.

H. George Wilde, Lenox, Mass.; A. R. Camfield, Neosha, Mo., and Peter Henning, Jr., Arlington, Wash., were re-elected without opposition to vacancies on the board of directors.

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TEXAS

By JIM TAGGART

NEW BOSTON, TEXAS—GROVER SELLERS of Sulphur Springs, president of the Texas Jersey Cattle Club, was the principle speaker at a Dairy Production Day here in June.

Sponsored by the local Chamber of Commerce, the promotion day was Bowie County's first dairy show. Visitors saw displays of dairy equipment, supplies and feed, and demonstrations of farm implements and machines used by dairy farmers.

"We mailed entry blanks to all breeders, county agents and chambers of commerce in the area," W. Gerald Stephens, manager of the New Boston Chamber of Commerce said, "and as a result a large number of quality cattle were entered. We hope to make Promotion Day an annual event.

The dairy show featured an old-fashioned barbecue at noon. Bowie County farmers have built 87,000 acres of improved pastures. Now, farm leaders are pushing the dairy herd improvement program to establish dairying more firmly in the region.

Tom E. Voss was dairy committee chairman.

Dallas, Texas—The foremost national show of milking shorthorn cattle ever held in the United States will be brought to Dallas by the National Milking Shorthorn Society, October 13 through 22, for the 1948 State Fair of Texas, R. L. Thornton, State Fair president, has revealed.

The judging program will be held October 18. Climaxing the show on the following day will be the National Milking Shorthorn Sale, in which breeding shorthorn cattle will be sold at auction to provide Southwestern breeders, 4-H Club members and Future Farmers with an opportunity to obtain the best quality foundation animals of the breed.

One thousand delegates are expected to attend the National Milking Shorthorn Society's annual banquet and meeting October 18 at the Baker Hotel. Plans for this meeting are being worked out by the Southwestern Milking Shorthorn Association, the Texas Milking Shorthorn Association and officials of the State Fair.

Fifteen state groups have signified that they will send outstanding herds from Texas, Minnesota, Iowa, Illinois, Missouri, Kansas, Oklahoma, California, Ohio, Indiana, Wisconsin, and Nebraska. Group entries will be sent from the New England States, the Virginias and Dakotas.

To insure a representative cross-section of the nation's best Milking Shorthorns, the Society has worked out a plan of freight equalization so that breeders in the most distant state may ship animals to the State Fair without a penalty.

Approximately 250 head will be shown.

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GEORGIA

By RUBY CLEMENTS

ATLANTA, GA.—A DAIRYMAN WHO SAID he was "tired of monopolistic control" by the State Milk Control Board announced recently he was liquidating his $80,000 dairy investment near Ben Hill, suburb of Atlanta, and quitting the dairy business entirely.

Alfred P. Pitman, operator at the Wollow Lake Farm Dairy, 14 miles from the heart of Atlanta, in Ben Hill, said he was selling his prized Brown-Swiss cattle imported from Wisconsin, converting his rolling green pastures to a lake, giving a $10,000 Mellon bull to Tuskegee Institute, and dismantling his barns.

"When I started the business four years ago I wasn't regulated by the Milk Control Board," he said. "But since that time I've been taken under its regulations and jurisdiction and harassed, until I'm sick of it. I started out selling milk at 15 cents a quart and making a good profit. But I'm tired of monopolistic control."

Mr. Pitman, who is also a manufacturer of hotel appliances, said he had been furnishing milk to Atlanta Restaurants Dairy, Inc., which the Milk Control Board put out of business for price-cutting. He added, however, that he had retail routes in Atlanta, East Point, College Park, Hapeville, Fairburn and Palmetto. He said he sold about 1,000 gallons milk a day, producing about 400 gallons himself and buying the rest from farmers.

S. C. Cole, Director of Georgia Milk Control Board, said it was his knowledge that Pitman began selling his dairy

(Please Turn to Page 61)

DR. ROBERT F. HOLLAND

Problems of the Industry

DR. JAMES C. WHITE

Dr. Robert F. Holland and Dr. James C. White, both of the Department of Dairy Industry at Cornell University, conduct their question and answer column each month in the "Review". Questions should be addressed to either Dr. White or Dr. Holland, Department of Dairy Industry, Stocking Hall, Cornell University, Ithaca, N. Y.

●

Cappy Flavor in Homogenized Milk

QUESTION—How do you retard that papery odor and taste in homogenized 3.5% milk? We use a high-temperature, short-time pasteurizer, heat to 170°F. for 16 seconds and cool to 40°.

J. M. P., Pennsylvania.

ANSWER—The papery odor and flavor which you mention is quite common both in unhomogenized and homogenized milk. However, the high temperature of pasteurization which you are using will ordinarily incorporate a slightly cooked flavor into the product which may cover up any papery order or taste that might develop. Apparently the condition is bad enough in the case of your product so that this does not happen.

This flavor and odor, as you know, is caused by the oxidation of the fat. The trouble may start with the cow and some animals give milk which is highly susceptible to the development of this oxidized flavor. In the case of these cows, there is nothing that one can do to stop this oxidation. We can only retard it. The development of this flavor is accelerated by the presence of copper in the milk and by the exposure of milk to daylight and particularly to direct sunlight.

As a first corrective measure, I would, therefore, suggest that you eliminate as far as possible all tinned equipment showing exposed copper and all copper-bearing metals from your milk contact surfaces and that you expose your bottled milk to daylight and direct sunlight as little as possible. An hour or two on the consumer's front porch will generally bring about rapid development of this papery flavor.

Some milk plants have installed amber colored cellophane over the windows in their bottling room, thus cutting out the blue rays of light which tend to promote the oxidation of the fat. Many have also instructed their truck drivers to place the milk bottles in a shady spot on the consumer's porch or to put them in cabinets where they cannot be exposed to sunlight.

The next step is to check your farmers' milk as it is delivered, taking a small amount from each delivery and putting it in the cooler for 72 hours, and then tasting to determine where your worst sources of trouble lie. Sometimes the elimination of one or two cows from the herds of your suppliers will go a long way toward the correction of the difficulty.

Oxidized flavor appears more commonly during the late winter months and is worse some years than others. Ordinarily the trouble will be greatly reduced when the cows have been on pasture for 3 or 4 weeks.

Acidity and Solids Not Fat

QUESTION—We have been following a quality control program in our plant and have been taking acidity tests on each producer's milk. However, we find that the producers who are bringing us the richest milk also have the highest acidity. Should this be true? And, if not, how can we correct this situation among what we have always considered our best producers?

D. F., Ohio.

ANSWER—We have known for a long time that milk of a high fat test will have a high acidity. By acidity, of course, we mean the amount of acid that is determined by running an ordinary titration when the milk is delivered to the plant. There is a very good theory which accounts for this relationship and it is based on a good deal of experimental data. Milk as it comes directly from the udder always has some acidity, which is caused by the compounds in the skim milk fraction. Compounds such as casein, alubumin, and part of the mineral content all contribute to this acidity. It has been established that cows which give a higher fat content in their milk also give more of these constituents which I have previously mentioned. In other words, a cow which gives a concentrated fat in her milk will also give a more concentrated skim milk. You understand, however, that this relationship is true only in natural milk. If the fat content of milk is standardized, this relationship no longer exists.

The following figures were derived from milk samples collected from milk plants in New York State. They represent over 1000 samples of milk.

Fat %	Acidity %
3.0	0.142
4.0	0.150
5.0	0.158
6.0	0.166
7.0	0.174

They may not be exactly correct because they are producers' samples and, therefore, have been standardized at least to the extent of mixing the milk of individual cows together in cans, but, because of the large number of samples tested, the standardization should not change the figures to any great extent.

LAST WORD IN UNIFORMS

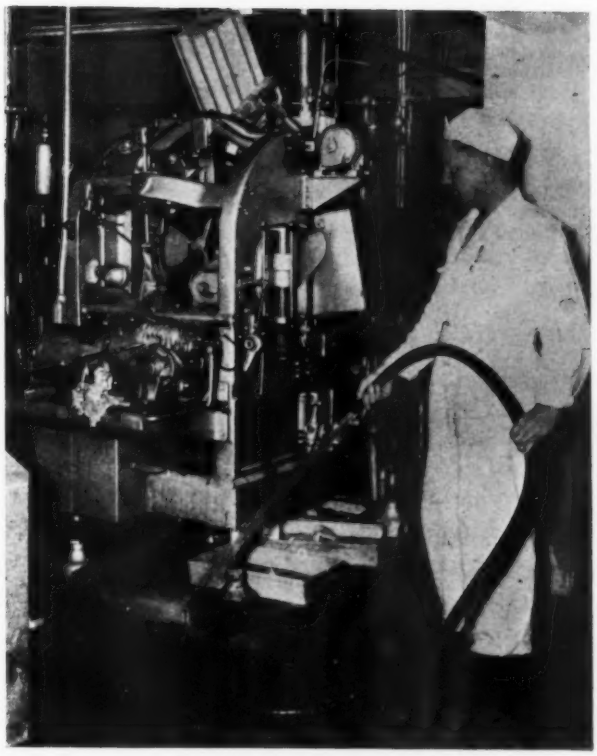
Eye appeal, as well as functional utility, stamp this routeman's clothes as the last word in uniforms. The design is the work of months of research by Reeve's Brothers, Inc., large Southern textile manufacturers.

A BARBERY GROUP

Beards are a part of the anniversary celebration at Sapulpa, Oklahoma. In honor of the Western pioneers these members of the Liberty Glass Company's sales department display a wide assortment of tonsorial art. Top row, left to right—Huber Hughes, credit manager; Richard McCaig, manager; Worell D. Dees, assistant sales manager; and James R. Starnes, sales manager.

MOTOR FAILURES REDUCED

Sanitary laws requiring that motors, and the machines they operate, be washed down at regular intervals, present the dairy operators with a difficult maintenance problem, for the washing down results in an excessive moisture condition that may result in frequent breakdowns of the motor insulation. Thomas McClendon maintenance superintendant of Cabell's Dairy, Dallas, Texas, has greatly reduced motor failures by rewinding his motors with inorganic Fiberglass insulation—replacing organic insulation materials—as each motor failure occurs. According to Mr. McClendon ninety per cent of the motors in the Cabell plant are now Fiberglass insulated. Many of them have been operating for two years without failure.



JACKPOT IN JUNE

Records of Last Year Shattered As Returns Raise Project to Million Dollar Class — Fifty-seven Queens Chosen in Twenty-six States

One of 57 Dairy Queens chosen throughout the U. S. was Shirley Chaney who ruled over Ohio's Dairy Month festivities.

CHICAGO, ILL.—JUNE DAIRY MONTH'S promotion has hit the jackpot. Records that were set in 1947, the previous banner year were doubled.

Indications are that it will reach the million-dollar publicity class.

A million dollars worth of improved public relations for the dairy industry and for increased sales of milk, ice cream, butter and cheese is a sizeable piece of public relations in anybody's league.

"The public response this year has been truly amazing," declared Chairman Hult, National Chairman of the Dairy Month Program Committee. "The deluge of publicity that Dairy Month received makes two things evident beyond any question of doubt: it shows the marvelous cooperation in promotion that was extended by the nine regional Dairy Month chairmen and the 48 state chairmen, and it is evidence of the priceless advantages to the dairy industry that can be obtained at microscopic cost."

Chairman Hult pointed out that full records for the Dairy Month observance this year will not be available for perhaps two more months. "The clipping bureaus are swamped," he said, "and we are daily receiving huge quantities. Usually these clippings, which are from newspapers only, continue to come into Dairy Month headquarters until late in August." Radio publicity alone has already passed a half-million dollars in value, Chairman Hult declared.

Coronation of Miss Chaney who was backed by R. H. Carpenter's Linton Dairy of Wilmington in the contest for Ohio Dairy Queen honors, featured promotional activities in the state.

"We do not have a reporting bureau for radio as we do for newspapers," he said, "so we have to rely mainly on scripts and transcriptions that are given us by the stations and sponsors, and so undoubtedly what we can prove by record is by no means the full report.

"However, we know that at least 17 national network radio shows were devoted to Dairy Month, each of them 15 minutes long. Another network show lasted a half-hour. These network broadcasts were carried by 150 to 250 stations.

"One radio sponsor alone contributed 9 broadcasts on a nationally known show over 249 stations, whose listeners are estimated at 2,000,000. Another sponsor contributed 6 network shows.

"Then there were special shows, countless in number, ranging from 5 minute spots up to 30-minute shows over clear channel stations.

"And there were thousands of spot announcements on local and network stations."

Tremendous Newspaper Linage

Newspaper linage, Chairman Hult reported, so far is 121 percent ahead of the comparable period for last year. "Whereas at the end of June last year we had 70,000 lines," he said, "we have 156,000 now, and clippings still keep coming in like a flood."

One striking development was the huge growth in elections of June Dairy Queens by units of the United States Junior Chamber of Commerce, called the Jaycees. In 1947, when the Jaycees promotion began under the encouragement of the National Program Committee, 57 units elected queens in 26 states. This year 263 units in 26 states elected June Dairy Queens—a 500 percent increase.

"One of the greatest promotions that we've seen," said Chairman Hult, "was in Ohio. There the entire state was organized, with a budget of only $1,000. All units of the Jaycees in the state participated, and there were 250 girls entered in the Queens Contests. Newspaper publicity, 2/3

of it came from the Jaycee activities, and 50 percent of that was on the front pages of Ohio's dailies, totaled more than 16,000 lines. Eight radio stations that we know of featured from 1 to 12 broadcasts each, up to the time of the selection of the state queen, and then radio really came into its own."

Of vast importance in the promotion—although not counted in the estimated value of publicity, which was limited to newspapers and radio only—was "the remarkable and consistent support of the dairy trade press. It is most heartening to note," said Chairman Hult, "that the trade press continues to give 100 percent support to the dairy month program, but this year it even gave 25 percent greater space and editorial attention.

Nineteen Front Covers

"Last year front covers were used in behalf of Dairy Month by 19 publications; this year there were 29. Many of these publications also gave 2, 3 and sometimes 4 pages of valuable space in the promotion of Dairy Month for the benefit of the full industry.

"Likewise we again received tremendous encouragement and cooperation from association secretaries, who wield such potent influence over the nation. Without them and without the dairy trade press, our efforts would have been pointless.

"Railroad, chain and variety stores, food and restaurant magazines, national women's magazines, food editors, newspaper advertising services, press associations and syndicates, affiliated Dairy Council units—all added great effectiveness in this promotion, and each one is almost worth a story in itself.

"We also have abundant evidence that where industry tied in with this publicity there were concrete sales results.

"In short, it was a wonderful month."

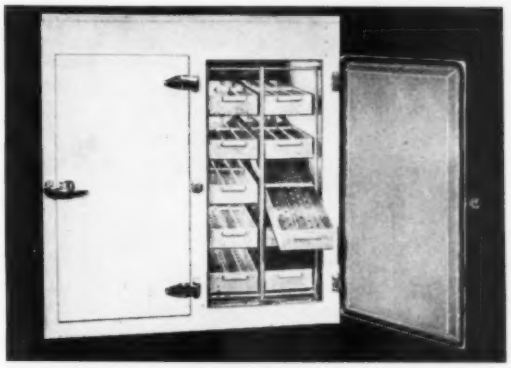
Not only that—plans are being made even now for the 1949 campaign.

"We are planning now," said Chairman Hult, "because we know that effective growth and expansion cannot be left to chance. And the whole National Dairy Council organization, whose offices again served as Dairy Month headquarters, is planning through its many channels of influence to make 1949 an even greater year for the dairy industry."

Serving under National Program Chairman Hult were two key committees directed by NDC staff members, one on promotion headed by Neal D. Kelley and one on publicity headed by Robert Bull.

Sparkplugs in Philadelphia's June Dairy Month activities were Miss Grace Nadig, Temple University, George Diffenback, Chairman Dairy Month Committee and Thomas Waddell of the MDA.

THE Compo-Cooler CABINET



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CONSUMER EVALUATION *of* MILK

By **W. A. WENTWORTH**
The Borden Company

WHY IS THE PRODUCTION OF MILK in the United States shrinking at a time when the demand for dairy products would indicate that farm production should be maintained or increased? There are many reasons given for this anomaly. Among them are the aftermath of war with its effect upon the disposition of individuals to work on the farm, the high cost of feed brought about by the European need for food grains, and the advantage of alternative farm products including the value of dairy cattle for meat.

Dairy Prices Relatively Low

Basically this relates to the attitude of consumers toward prices for dairy products which are needed to stimulate some 4 million farmers scattered throughout the United States to put forth the effort required to milk the cows, handle the milk properly and deliver it to the processing plants. The other day, H. H. Rathbun, President of the Dairymen's League, said, "It isn't so much a question of farmers needing money as it is a question of insuring a sufficient supply of milk to meet consumers' needs."

During 1947, the index of retail prices of dairy products based on the 1935 to '39 average stood at 186. The retail prices of meats stood at 215. That reflects the attitude of consumers toward paying prices for finished dairy products which would make it possible to maintain competitive relationships on the farm. Apparently consumers today desire hamburger and bologna made from slaughtered dairy cows on their dinner table more than they desire the dairy products which might be produced from the milk of those animals if they were alive and being fed for milk production.

Of course those higher retail prices for meat are reflected in farm prices. Throughout the past year and a half the index of farm prices for meat animals has been showing from 40 to over 100 points advantage over the index of farm prices for dairy products. If this were expressed in percentage advantage it would range from 12 to as much as 50 percent. In June of this year the index of farm prices for meat animals was 390, for dairy products 291.

Dairy Prices Have Not Increased As Others

For the year 1947, retail prices of fluid milk and cream throughout the U. S. had not increased over prewar as much as had most of the other principal foods. Only chickens, cereals, and bakery products showed less increase than milk. Potatoes, vegetables, fruits and all meats showed greater increases in retail prices over prewar than did fluid milk.

But consumers and many public officials do not seem to realize this. At hearings the early part of June in the New York City area under the Federal Milk Market Order applicable there, consumers and representatives of the city government objected seriously to the proposed increase in prices to farmers needed to maintain milk production for the city. There has been some resistance to the retail prices of meat but no such organized expression as occurred with regard to milk. Similar problems exist in other cities.

Since OPA days dairy product retail prices have increased 70 points on the index with prewar years as the base while meat prices have increased 100 points. Meat prices were held lower relatively than dairy prices by OPA but meat prices have made greater gains since then.

Consumer Per Capita Expenditure

This low price relationship would seem to favor increased consumption of milk and cream. The facts are that the increase in the per capita use of milk and cream over prewar was not as much as it was with beef, veal, pork, chickens, eggs, and fruits—all of which, except chickens, increased more in retail price than did milk and cream.

When the consumption and the prices are put together we get the total consumer expenditure per capita for any product. With fluid milk and cream the 1947 per capita expenditure of course increased over the prewar years but by no means in the amount of most other foods. In fact the relative increase in consumer expenditure for potatoes was greater than it was for fluid milk and cream as it was also for meat, except lamb and mutton, and for fruits, vegetables, poultry and eggs.

In 1947 the disposable income per capita, which is the amount left after the payment of income tax, was 139 per cent greater than prewar. The per capita expenditure for fluid milk and cream was 99 per cent greater which was less than the gain in income. The expenditure for beef and veal increased 248 per cent which was much more than the gain in consumer income. Likewise the increase in per capita expenditures for pork, fruits, and eggs was more than the gain in consumer income.

Just to substantiate what we have been saying let's use the year 1923 as the base, which is frequently done. On that basis the index of the price of milk last spring was 155; for meat 229; for weekly earnings 217. In both of these comparisons the expenditure for meat increased more than the increase in disposable income or weekly earnings, whereas the expenditure for milk was substantially less.

Every indication is that the prices of meat will go still higher this fall. In the dairy industry we have been experiencing increases in prices for our products during the flush period when under normal circumstances the prices decline. So far as meat is concerned, the Department of Agriculture and the meat industry have been warning the public that the supply of meat will be inadequate to meet the current demand this fall. They have publicized the fact that resulting prices of meats will be high. What is the dairy industry doing to prepare its customers for higher prices which seem to be inevitable? Are we in this industry going to let hard economics take care of the situation, which it will do, or are we going to ease the path for consumers and ourselves?

Dairy Products Are Economical

A short time ago Professor Autrey at the University of Alabama made some comparisons between the food value in a quart of milk and other foods and also what the price of a quart of milk would buy in other foods. Milk stands out in this comparison most advantageously. For example; 22 cents, the price of a quart of milk (2.15 pounds), would buy only 3.4 eggs which contain less than half of the food value in the milk. 22 cents would buy slightly less than 5 ounces of round steak or 27 per cent of the food value in a quart of milk. With fish the food value equivalent to milk cost three times as

much. In fact, bread and potatoes were the only food products as far as food values are concerned, which were more economical than milk.

There are other ways of showing the low cost of milk under today's prices which evidence the fact that milk is not in a fair competitive position. One which may be used is the calorie basis.

To purchase 100 calories,

in milk	at 26 cents per quart	the cost is 4 cents
in pork chops	at 60 cents per pound	the cost is 5.7 cents
in round steak	at 70 cents per pound	the cost is 8.8 cents
in eggs	at 60 cents per dozen	the cost is 7.7 cents

The Bureau of Human Nutrition and Home Economics of the United States Department of Agriculture has issued recommended weekly food orders for families of different income groups. For a family of 4 with 2 children in the medium income group the recommendation includes 24 quarts of whole milk for the week. That amount of milk provides 40 per cent of the nutrients. Currently that amount of milk costs 22 per cent of the total cost.

Do consumers know these facts? Do they realize that if they were to pay more they still would be buying an economical food?

Consumer Understanding

In a survey reported last month by the Millers' National Federation, in which they were securing public attitude toward bread, the consumer impression of the economy of different foods was sought. 31 per cent of the consumers interviewed indicated that they thought milk gives the most value for the money. Most of them based this on nutritional benefits. That is a reflection of the good programs which have been carried in this field. Only a few of them mentioned its economy. That is an indication of the need of building consumer understanding of the money value of dairy products.

A while ago the Milk Industry Foundation reported the results of another survey in which it was indicated that 71 per cent of the consumers interviewed say that milk is the most essential food and that it would be the last of all foods which they would cut down on in an inflationary period.

In spite of the fact that milk prices have not increased relatively with consumers income nor in comparison with most other foods and in spite of the fact that a large proportion of the consumers have said that milk would be the last of the foods they would cut down on, there exists in the industry a definite feeling that there will be resistance to further price increases even though they become necessary to attempt to provide for consumer needs. There is fear that sales will decrease substantially when the required two or three cents per quart increases go into effect.

Similar attitudes or fear of them, prevail within the industry toward other dairy products. The values which are needed to produce milk to effectively meet present demand for dairy products do not seem possible unless and until consumers become more conscious of what it costs to produce and the values which are in the bottle of milk, the dish of ice cream, the pound of cheese.

If we are going to avoid consumer criticism of and resistance to prices for all dairy products which will equalize the competitive production situation on the farms of this country, consumers must have a better realization of the money value of dairy products in comparison with other foods. If consumers are to have that realization every member of this industry and every organization in this industry needs to devote their resources of intelligence, advertising and publicity to the task. Let's attempt to have consumers understand and use adequate amounts of dairy products rather than criticize and cut down on consumption.

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It is a well known fact that Layne Well Water Systems are built to the very highest standards. They are installed exclusively by the Layne Organization Affiliated Companies—and according to Layne's exacting specifications.

Layne also provides valuable engineering counsel on water supply and pump needs for all commercial, industrial and municipal needs. There is no obligation for this service.

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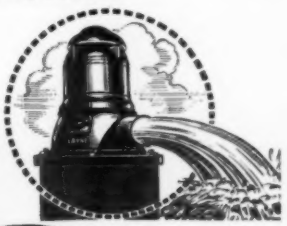

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"Packaged Profits" Issued

Paraffined Carton Research Council Book Highlights New Trends in Ice Cream Production and Merchandising

Chicago, Ill.—The per capita consumption of ice cream in the United States can be increased substantially through the merchandising possibilities of the factory-filled carton. This prospect is brought forcefully to the attention of the dairy industry in a new book outlining trends in ice cream production and merchandising.

Entitled "Packaged Profits," the just-issued book is an authoritative, comprehensive and timely analysis of new, significant developments in the ice cream industry. It was written by one of the industry's outstanding specialists for the

Paraffined Carton Research Council which published it as a part of the Council's continuing packaging research program. Copies are available to the dairy industry at the Council's offices, 111 West Washington Street, Chicago.

"The factory- filled package presents the greatest single potential avenue for increased gallonage afforded the ice cream industry today," the book says. "A vast reservoir of new sales and increased consumption is waiting to be tapped by enterprising ice cream manufacturers and their dealers who can recognize, and take advantage of, the merchandising possibilities in the factory-filled package."

Predicts Use Could Be Doubled

The book adds that these possibilities combine to form a pattern of progress and volume that could "very easily be the means for doubling today's per capita consumption of ice cream in the United States."

In ten chapters, "Packaged Profits" discusses in detail problems confronting ice cream producers and merchandisers. Subjects include the role of the factory-filled package in merchandising; ice cream in food stores, super markets and drystops; automatic packaging machines; point-of-sale merchandising equipment for packaged ice cream; facilities for storing ice cream in the home; package ice cream at the drug store, and bulk versus package at the dealer outlet.

The book is liberally and strikingly illustrated with photographs in color and black and white. Specific cases histories are recorded in demonstrating the production and merchandising trends discussed.

MIF Convention Plans

Many New Features to Be Offered at Annual Gathering — All Phases of the Industry to Be Covered in Meetings Scheduled

THIS YEAR'S ANNUAL MILK INDUSTRY FOUNDATION convention at Atlantic City, October 28, 29, 30 will offer many new features to swell the attendance.

With Chalfonte-Haddon Hall as the headquarters on the Boardwalk milk distributors from all parts of the United States will take part in this outstanding post-war convention.

Thousands of milk industry members can drive easily to the convention from nearby cities and visitors from distant states know that Atlantic City is easy to reach by rail and air.

Attraction for 40 Years

For forty years, the annual convention of the fluid milk industry has attracted the attention of milk dealers from the United States, Canada and many foreign lands. Three days of serious discussion of industry problems will more than repay time and expense of attending.

Col. B. F. Castle, executive director has announced that the three-day program at Atlantic City will include three general sessions on the mornings of the 28th, 29th, and 30th with sectional meetings each afternoon covering Sales & Advertising, Milk Supply, Plant, Laboratory, and Accounting. There will also be one afternoon session devoted to Public Relations, probably on Friday, October 29, according to present plans.

There will be more open forums and town meetings for the discussion of general industry problems this year than ever before. Convention Committees engaged in planning programs include: Accounting Section: H. H. Smith, Chr., Diamond Milk Products, Columbus; J. M. Forbis, Sec'y., Forest Hill Dairy, Memphis. Laboratory Section: Dr. J. G. Brereton, Chr., Sheffield Farms Co., New York City; Marcus Dey, Sec'y., Golden State Co., Los Angeles. Plant Section: Israel Adams, Chr., St. Lawrence Dairy, Reading, Pa.; John H. Forslew, Sec'y., Carnation Co., Los Angeles. Milk Supplies: Dr. H. L. Ragsdale, Chr., Abbotts Dairies, Philadelphia; Glen Ogle, Sec'y., Ideal Pure Milk Co., Evansville. Sales and Advertising: C. Ray Brock, Chr., Brock-Hall Dairy Co., New Haven; Edwin H. Davenport, Sec'l., United Farmers of New England, Boston.

Active in Planning

Also active in planning are other Foundation Committee members: Accounting Advisory—J. F. Malone, Borden Co., Chicago; L. C. Anderson, General Ice Cream Corp., Schenectady Harrison Hunter, Telling-Belle Vernon Co., Cleveland; Charles O. Nagle, Pevely Dairy Co., St. Louis; F. V. Solzan, City Dairy Co., South Bend; W. R. Wright, Beatrice Foods Co., Chicago. Sales Promotion—Cameron Peck, Bowman Dairy Co., Chicago; Edwin H. Davenport, United Farmers of New England; E. K. Schwartz, Abbotts Dairies, Philadelphia; F. E. Rogers, Thompson's Dairy, Washington, D. C. Plant—F. Bruce Baldwin, Baldwin Dairies, Philadelphia; R. J. Winning, Sheffiield Farms, New York City; George Poppensiek, Borden's Farm Products, New York City; Dr. H. A. Trebler, Sealtest, Baltimore; Ross J. Quirie, White Bros. Milk Co., N. Quincy, Mass. Laboratory—A. J. Powers, Borden's Farm Products, Brooklyn; C. J. Austin, Supplee-Wills-Jones Milk Co., Philadelphia; Dr. A. C. Fay, H. P. Hood & Sons, Boston. P. E. LeFevre, Chestnut Farms-Chevy Chase Dairy, Washington, D. C.; Milk Supplies— J. O. Eastlack, Borden Co., New York City; H. H. Neel, National Dairy Products, New York City.

THE CORRESPONDENTS REPORT

(Continued From Page 53)

holdings in May. Mr. Pitman, he said, had been selling his milk to the Atlanta Restaurants Dairy Inc., until May 12. On May 13th, he said, the Restaurant concern began buying its milk from the Georgia Milk Confederation and Mr. Pitman began selling his holdings a few days later.

The South

Mr. Pitman charged that the Milk Board "juggled prices up and down" and that members always knew in advance what they were going to do at their meetings, "because they talked before hand!" He added he didn't think the Board was contributing to the advancement of the dairy industry in Georgia.

While he said that Milk Control Board was largely responsible for his quitting the business, Mr. Pitman explained he had been "considerably harassed" by the City Health Department and its sanitary regulations, charging that he understood "pressure by a City Councilman in the milk business" had been used against him.

Dr. J. F. Hackey, City Health Officer, denied these charges, insisting that the Standard Milk Ordinance was being enforced impartially. Evidence recently submitted to the Georgia Milk Control Board by the Georgia Milk Association shows that the industry in Georgia, despite its higher percentages of total milk dollar to the producer and a distribution spread lower than most of the major milk markets, showed a net profit in 1947 lower than national average.

Their Faces Are Red

An Atlanta attorney has forced the Georgia State Milk Control Board to admit by a 5-to-0 vote of its unawareness of its own rules.

"I never knew the Board had rules," Mrs. Frank McCallister, Consumer Board Member said, adding that she had been overruled once in the past on a request to have existing regulations, if any, studied.

The Board vote sustained a plea made by Morgan Belser, attorney for Georgia Milk Confederation, that the Board had not made legal service of an order demanding that the Confederation appear at a hearing on charges of violating the Board's milk price order.

Other Board members admitted being as surprised as Mrs. McCallister when Belser asked for minutes of Board meetings since its Board's own rules about personal service passed in 1939.

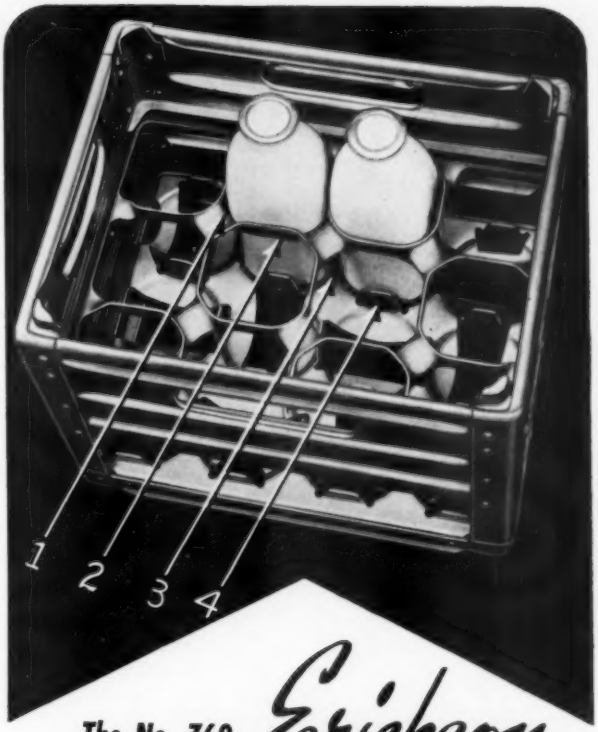
"Mr. Belser you've done us a great service," Board Director, S. C. Cole admitted. "We plan to study these rules before we bring you in here again."

Mr. Belser's first-round victory followed preliminary skirmishes between himself and the Board's lawyer, Wilbur Nail, over whether Board Members, Cilumbus Roberts of Columbus, and Oscar Price of Monticello, should sit in on the hearing called to pass on alleged violations of the Milk Control Act.

Both Roberts and Price admitted being stockholders in the Confederation, following which Board Chairman, J. I. Breedlove disqualified them for the hearing. Mr. Belser immediately objected that the hearing was not being held by a full Board as required by law. Breedlove overruled him and the hearing continued.

"I plan to attack the Board on Federal constitutional grounds and the constitutionality of the Milk Control Act itself," Belser told reporters. "I'll take this to the Supreme Court of the United States if necessary!"

Director Cole said the Board would proceed to serve the Georgia Milk Confederation legally and hold a new hearing on alleged price violotions at a date to be announced.



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1. Corner of bottle contacts here, where it is strongest.
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3. In filling case, bottle drops onto a smooth bottom with a "ball and socket" fit.
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The Case With Extra Years of Low-Cost Service "Built-In"

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TRAVEL PHOTOGRAPHS *in the* DAIRY STORE

By **ERNEST A. DENCH**

Good Window Displays Help Sell Dairy Products to Picnicers, Campers, Vacationers — Action and Interest Main Factors in Presentation

DURING THE SO-CALLED outdoor months, the milk plant operator with a retail store or depot is going to sell travel. By so doing he expects to sell powdered and canned milk, canned butter, packaged and canned cheese to those people who expect to camp or picnic, or are enroute to their shore or country cottages.

This will bring into play the bulletin board method of displaying scenic photographs. It is STILL the bulletin board method when pictures are mounted on frames or panels.

This bulletin board method is less effective when photographs, mounted or unmounted, are spread FLAT on the show window floor. Such an arrangement may be passably acceptable for the front row of prints, but from this space BACKWARDS, the display should gradually rise until the top eye level of four to five feet above the sidewalk paving is reached. The reason is that front-to-rear pictures on the selfsame level hide one another from view. It is also hard on the eyes.

Window Display Depth

Depth to a window display in which photographs are shown, can be obtained, when the prints are 8″x10″ or larger, by omitting them from the foreground. Instead they are grouped in elevated positions from the center to the rear, with the front half of the time concentrating on assortments of cheese in semi-cut cartons at slight reductions for such quantity purchases.

You borrow, appropriate or utilize the trusty eye appeal. You can lead the eye by indicating a direction or directions it should take. The trick with this type of presentation is, from each and every photograph, to run a decorative paper or rayon ribbon streamer. Each streamer starts out from a different rear location and terminates somewhere down in front. The effective outcome is a fanwise spread of streamers, with a crisply-worded sign at the front end of each.

Frankly, the milk plant operator or dairy products retailer flatters himself when he considers that all he has to do is to place photographs among the dairy produce items in non-perishable packs—and potential campers, picnickers and summer home owners will look at both the dairy produce and the pictures. The photographs may be superb delineations of scenic beauty to him; but what he sometimes forgets is that the traveling public has lots of competition for its eyes while walking along city streets.

Pictures Must Do Things

Furthermore, many such photographs are devoid of human interest. They may show a waterfall, a strip of ocean beach, a forest of tall trees, a mountain in the distance, a beautiful inland lake—and that's all. People doing things with evident enjoyment against these backgrounds are badly needed. Even the commonplace incidents of travel make photographs more appealing. The plain scenic type of picture is "ten a penny" among astute magazine editors. The addition of a pretty girl wading in a pool below the waterfall, a camper cooking bacon on a green twig over a campfire in the forest clearing, or a native character doing something expected of him such as spitting out a wad of chewing tobacco, transform many a plain scene into a rich bit of human interest.

Even when the utmost imagination is applied to it, the bulletin board is a very elemental form of display. Showmanship in the display of photographs is a combination of several features, not necessarily introduced in the SAME display. The foremost of these features are, in the order named, color, lighting and atmosphere.

Shadow Boxes Help

One type of visualization to combine all three features is good for innumerable variations. This is a shadow box at the rear center. Bordered with, say, a simulated gilt picture frame, and dolled up inside at the sides and back with drapes in harmonizing colors, it provides a commanding setting for a worth-while human interest travel photograph. The right spotlighting brings out the highlights of the scene. The photograph acquires a three-dimensional effect. If the show window is shallow, it is made to appear deeper than it actually is. Then comes the captioning of the photograph in this wise:

> "Going Away—to camp?
>
> Picnic?
>
> Open Your Summer Home?
>
> Let us help with your commissary problems; no obligation to purchase."

The above does not, by any means, exhaust the resourcefulness of the shadow box treatment. A version of it we saw recently centered on the miniature replica of a theatrical stage. Occupying the main part of the stage was a colored photograph of a dogwood grove in flower at a state park, with a happy family picnicking on the new, rich green grass. Their car was on the side of the road.

It would have been possible, by an animated device, to have had the curtain close and re-open at intervals, and perhaps, too, a change of photographs.

Still another dramatic ally is the photographic blow-up. The size of it alone commands attention, plus the fact there are no other photographs competing for attention.

There are lots more than meets the milk plant operator's eye when using travel photographic "decoys" in window displays. He should eye these pictures from the standpoint of those people he expects to interest in his timely merchandise. This is a pictorial age. The photographer may have done a swell job, utilizing almost every trick of his profession, but in the SHOWING of this picture in the milk plant operator's window, an equal measure of artistic skill is necessary.

The milk plant operator may, while nearing the end of this article, wonder where he can obtain suitable pictures at low cost or for nothing.

Among his customers should be some advanced amateur photographers, who, for the purpose of a local window exhibit, could, no doubt, be prevailed upon to loan some of the prints shot on trips in previous years. Enlargements could be made for a small charge. Travel agencies and bureaus represent other sources of supply available on a loan basis for promotional purposes.

XUM

Society Holds Successful Outing

The first outing of the Metropolitan Dairy Technology Society of New York was held on Tuesday, June 15. The outing held at the L. I. Agricultural and Technical Institute at Farmingdale, L. I. was a huge success.

Early comers had a chance to play golf at Bethpage Park and then return for a luncheon. After the luncheon there was a conducted tour through the buildings of the Institute.

Then following the tour there was a softball game between the peddlers and those directly connected with the dairy industry.

The business of the outing was quickly disposed of and an excellent supper was eaten. Those who attended were asked to give a thirty second review of their careers in the industry, but most just told some brief story instead.

•

Non-Fat Curd Milk Introduced

A non-fat soft curd milk has been introduced to the Philadelphia market, by Abbotts Dairies. It is believed that this new product makes available for the first time a soft curd milk with the butterfat removed. The curd tension fully meets the definition of the Council on Foods and Nutrition of the American Medical Association.

Vitamin A, removed with the butterfat, has been restored and the milk fortified with Vitamin D for the utilization of calcium and phosphorus.

It has been shown by medical surveys that there is a widespread need for such a product for special feeding cases.

The producer has applied for a patent on the special processing in the curd reduction.

ADMISSION TO DAIRY INDUSTRIES EXPOSITION

For *Most* Visitors Admission is Free

FREE
- All Dairy Processors
- Milk Inspectors and Health Officials
- Other Federal, State and Local Government People Having a Valid Interest
- Dairy Educators and Their Students
- Equipment and Supply Jobbers or Distributors (who are not also manufacturers), Invited at Request of Exhibitors

VARYING BUT STANDARD FEES CHARGED TO:
- Supply and Equipment Jobbers Not Invited by Exhibitors
- Non-Exhibiting Supply and Equipment Manufacturers

The Dairy Industries Exposition is staged for dairy industrial guests. To let them derive its full educational and commercial benefits unhampered, the general public is not admitted.

If you are uncertain of your eligibility to attend or as to the admissions category into which you will fall, communicate with DISA, Albee Building, Washington 5, D. C. The Exposition Credentials Committee will promptly advise you.

OWNER
...Divoluxe cuts cleaning and labor costs...saves me money!"

SUPERINTENDENT
...Divoluxe cleans thoroughly...reduces maintenance, speeds production!"

"I use DIVERSEY DIVOLUXE CLEANER because..."

CLEAN-UP CREW
...Divoluxe is easy on hands...makes tough clean-up jobs simple, easy!"

DIVOLUXE

Fast, Easy, Economical Approach To Tough Cleaning Problems!

Yes, Dairy plant owners, superintendents and clean-up crews all agree there's nothing quite like Divoluxe for perfect results on extra difficult cleaning jobs!

That's because Divoluxe gives you 1. *Improved, "Advanced Type" Water Softening Action...* 2. *Powerful Wetting Action...* 3. *Greatly Increased Emulsifying Action...* 4. *Complete Free-Rinsing Action...* 5. *Superior Sudsing Action...* 6. *Rapid Solubility!* In addition, Divoluxe is safe for use on metals...gentle on hands...non-caking!

The outstanding superiority of Divoluxe has been proved by extensive laboratory tests...confirmed by wide application and acceptance in the field! Compare Divoluxe with any other cleaner...compare and you'll quickly see and agree Divoluxe really is amazingly superior! For complete information, call your Diversey D-Man or write: The Diversey Corporation, 53 West Jackson Blvd., Chicago 4, Ill. In Canada: The Diversey Corporation (Canada) Ltd., Toronto, Ontario.

FREE FOLDER! For the complete story on the amazing cleaning action of Divoluxe, write today for your copy of this informative folder!

DIVERSEY

Complete Sanitation Service

FOR THE MODERN FOOD PLANT

There's a Diversey D-Man and a Diversey Product Better Qualified to Serve You: In Disinfecting and Cleaning All Dairy Equipment and Utensils...Removing Scale...Removing Milkstone.

Ice Cream In The Post

Marathon Corporation Launches National Advertising Campaign With Full Color Pages In Famous Magazine

A NATIONAL ADVERTISING CAMPAIGN for ice cream and Marathon packaging for ice cream, sponsored by Marathon Corporation, Menasha, Wisconsin, is announced by Owen E. Lyons, advertising manager of that

company. Using full pages, full color in the *Saturlay Evening Post*, the first ad of the campaign will appear in the June 26 issue as a climax to the dairy industry's June dairy month promotion. Similar space in full color will continue the ice cream advertising theme in July and August.

The campaign, conceived and prepared by Marathon's agency, LeVally, Inc. of Chicago, was presented to Marathon field sales representatives in a series of meetings held last month in Cincinnati, New York, Chicago and Denver. An important part of the campaign plans include merchandising tieup material for use by the sales departments of manufacturers using the Marathon Linerless Carton, which is featured in the campaign.

"We believe that in this first full color, full page campaign of its kind, we are presenting to millions of consumers in a most effective way the appetite appeal of good ice cream," said Walter Dixon, Marathon dairy sales executive. "Our campaign, using fine natural color photo reproductions, will sell ice cream and while doing that will call attention to the convenience of well-packaged ice cream. Our copy and plans have been guided by and thoruoghly approved by leaders in the ice cream industry who have told us that it will greatly assist in the nationwide effort to boost sales in 1948," Mr. Dixon said.

The first ad (see illustration) which appeared just before the peak sales week-end of the 4th of July is headlined: "Here is Democracy's Dish" and its color photo shows vanilla ice cream with chocolate topping. The July copy features strawberry ice cream and the August ad is built around the goodness of chocolate ice cream.

Marathon advertising people point out that the campaign is a natural tie-in with the industry's promotion of "take-home" ice cream as a natural area for increased sales.

Marathon Corporation manufactures packages and packaging materials for other food industries including bakery, frozen food, meat, locker plants, cheese and many other processed foods. The advertising campaign will be carried into other fields on a continuous program in the *Saturday Evening Post*.

•

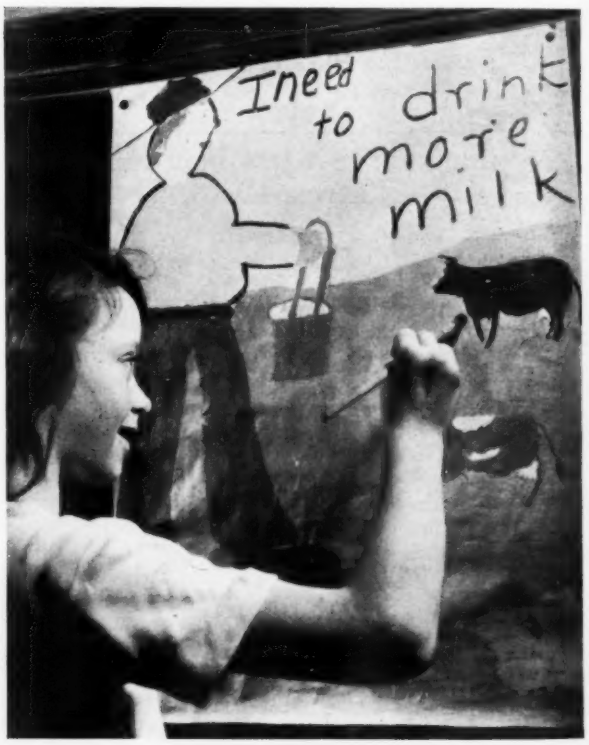
Nutrition Film Produced

General Mills and University of Georgia Promote Good Eating Habits Through Sound Movies

Minneapolis, Minn.—A new General Mills color sound film produced jointly with the University of Georgia and plugging good eating habits for school children won enthusiastic acclaim in preview showings this week.

The 20 minute, 16mm film is entitled "The School That Learned To Eat." It was filmed in the cotton mill village of East Griffin, Georgia and records an actual experience in community wide support of a nutrition program.

The film may be secured on free loan basis by writing the Educational Services Department, General Mills, Inc.,



Minneapolis, Minnesota. Because of the film's popularity, requests should be made six weeks in advance of showings if possible.

Three years ago General Mills began promoting nutrition education in Georgia as part of a nation-wide program. Its elements are the 7 basic food groups as approved by the

National Research Council. Trained educators are the administrators.

The new film, produced by the Southern Educational Film Production Service of Athens, Georgia, covers one of the many experiences in that state. The cast is made up of the boys, girls, teachers and parents of East Griffin, and the whole production demonstrates how the community mobilized to overcome what surveys showed to be widespread diet deficiencies among the youth.

The dramatization tells how faulty diets were revealed by surveys. Parents of the community then joined with the teachers to remedy the situation. The school kitchen was remodelled by volunteer workers. School lunches were served in an appetizing manner.

The early surveys showed that the majority of diets were lacking in green and yellow vegetables, citrus fruits and milk. The school lunch room was the proving ground where children worked out menus and kept records. This experience in turn was transferred to home served meals with the parents cooperating.

Staff members of the University of Georgia also cooperated in supervising the film. Distribution is expected to be widespread to schools, service clubs, public institutions and others interested in improving good eating habits and nutrition projects.

The program urges a wise selection of foods from each of the 7 basic food groups every day. These groupes are 1) green and yellow vegetables, 2) oranges, tomatoes, grapefruit or raw cabbage or salad greens, 3) potatoes and other vegetables and fruits, 4) milk and milk products, 5) meat, poultry, fish or eggs, or dried beans, peas, nuts, or peanut butter, 6) bread, flour, and cereals, 7) butter and fortified margarine.

●

Ice Cream Convention Speaker

THE INTERNATIONAL ASSOCIATION OF ICE CREAM MANUFACTURERS brings to its Annual Convention a man whom Alexander Woollcott called "the Richard Harding Davis of our time." He is H. R. Knickerbocker who presents one of the most timely, stirring and interesting addresses "At the Ringside of History."

In making the announcement, Robert C. Hibben, executive secretary of the International Association, declared, "This will be one of the highlights of our General Session. It's a Monday morning feature, and we urge everyone to come to Atlantic City in time to hear this man who has been found wherever in the past significant events have flamed in the world's news.

"He is one of the outstanding journalists, reporters and commentators in the country. They said of him in SEATTLE –'Again H. R. Knickerbocker was a joy to our Evening Lecture Committee! He gives a clear analysis of the international picture. Everyone went away feeling very well informed, particularly about Russia.' BALTIMORE–'Had his audience in the hollow of his hand. Fluent, entertaining, authoritative.' TULSA, OKLA.–Should appear every year in every town in the U. S.' LOS ANGELES–'We nominate him most co-operative of all lecturers. Magnificent! TOLEDO–'The huge audience crammed into every corner of the far too small auditorium, 15 or 16 hundred. They liked him emphatically.'

"With twenty-five years of experience in covering the top news stories all over the globe, Knickerbocker's pertinent observations and trenchant analyses merit the attention of thoughtful people everywhere.

THE WETTER YOUR PLANT EQUIPMENT AND WALLS THE MORE YOU NEED
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WHAT KIND *of* FARM PROGRAM *Did the* 80TH CONGRESS PROVIDE?

By DR. H. C. M. CASE

Head, Department of Agricultural Economics,
University of Illinois College of Agriculture, Urbana

Herewith the *"Review"* is happy to present an outline analysis, prepared by Dr. Case, of the compromise farm price support legislation passed by the Congress just prior to its June 19 adjournment. This widely-known agricultural specialist served as special counsel to the Senate sub-committee which was responsible for the planning and preparation of a long-time farm measure, and remained on hand in Washington during most of the period that the program was being debated both in the House and Senate.

Many observers feel that a further complete revision of the law will be accomplished by the Congress before the long-range terms become effective on January 1, 1950.

THE NEW FARM legislation passed in the last hours of the 80th Congress is essentially a long-range price support program. The new act provides for a flexible farm price support program to become effective in 1950. It passed the Senate by a vote of 79 to 3. The House bill had provided for a stopgap measure that would continue until July 1950 most of the price support measures now in existence.

The bill that was finally passed by both Houses of Congress is a combination of the two bills. It provides that the price support of basic farm commodities—i.e., corn, wheat, cotton, tobacco, rice, and peanuts—will be continued at 90 percent of parity until the 1949 crop is marketed or June 30, 1950. At that time the long-time flexible farm price support program will come into effect for these commodities.

The provision to support the prices of the so-called Steagall commodities at 90 percent of parity was a wartime measure designed to encourage increased production of the commodities deemed to be in greatest demand. When this act was passed, it was not anticipated that it would continue under normal peacetime conditions.

Elements of the Compromise

The Senate bill assumed that, since the war was over, provision should be made for a desirable long-time price support program. However, the compromise with the House bill supports milk and its products, hogs, chickens and eggs at 90 percent of parity until December 31, 1949.

At the discretion of the Secretary of Agriculture, other Steagall commodities will be supported at 60-90 percent of parity until December 31, 1949. Under the new act, tobacco will be supported permanently at 90 percent of parity with marketing quotas. The 1949 crop of wool will be supported at 90 percent of parity, but the future support for wool will be 60-90 percent of parity, the objective being to encourage an annual production of 360 million pounds of shorn wool.

DAIRY WORKERS MAY VOTE OUT UNION

If they are convinced they can do as well or better without, under the Taft-Hartley Act, some dairy workers may vote out union.

Already there have been three cases in milk distribution plants where employees have petitioned the National Labor Relations Board for a decertification election, were granted an election, and a majority voted against continuing union membership. However most of these elections go the other way, so far.

In the new legislation, wool is given special consideration in order to stabilize the sheep industry at a level to meet a substantial part of our needs without relying upon the uncertainty of wool imports. At the present time the world demand for wool has forced the price to a high level. The support for wool will probably not be effective until the world consumption of wool falls much below the present level. At present the domestic production of wool has fallen below 300 million pounds, or to the lowest point in 47 years.

The long-time features of the bill, which become effective in 1950, provide that when there is a normal supply of any of the six basic commodities, corn, wheat, cotton, rice, peanuts, and tobacco, the price will be supported at 75 percent of parity. In addition, as the supply of a product increases by two percent, the price support drops one percent until it reaches 60 percent of parity when the supply of the product reaches 130 percent of normal production. Also as the supply falls to 70 percent of a normal supply the price support rises to 90 percent of parity.

Basis of the Policy

A thought back of this long-time flexible price support policy is that, under the schedule provided, farmers will receive a larger total income for a large production than for a small production. This situation is desirable for consumers, who want abundant production, since it encourages farmers to produce a large output of food. Further, a definite floor below which the prices of these commodities will not be permitted to fall will have a stabilizing influence on the market price.

When the price of a farm commodity breaks seriously it is probably due in a measure to farmers' hastening to sell their products before prices sink lower during a downswing in prices. The actual floor under prices at a given level may have the effect of increasing the price at harvest time—in the case of grain, by perhaps 10 percent or more—when supplies are unusually high.

Furthermore, the reasoning may be that when prices of farm products sink below 60 percent of parity, as they did in the early thirties, it will disrupt the entire national economy because farmers, as well as others, cease to be normal purchasers of other goods and services. This action leads to heavy unemployment and reduces the consumers' purchasing power for farm products.

It is to the interest of the nation not to allow prices of farm products to fall to extremely low levels,—in fact, it is essential, in order to maintain our national economy, to prevent net farm income from sinking to low levels.

New Parity Formula Coming

When the long-range price support goes into effect, a new parity price formula also becomes effective. As is true of present parity prices, the new parity price formula is based on the

relationship of the prices of all products farmers sell to the prices of the commodities farmers buy. Also, the relationship between the prices of these two groups of commodities in the period of 1909-14 is still used as a base period.

The difference between the old and new parity formulas is simply this: The old formula makes use of the relationship between prices of individual farm commodities in the period of 1909-14. Because of changes in methods of production, improvement in crop yields, and many other factors, that period does not reflect present-day price relationships.

The new formula takes into account the relationship of the price of the individual farm product to the average price of all farm products for the ten immediately preceding years. This procedure keeps the parity prices of individual farm products adjusted to changing price relationships. It is an automatic formula that each year adds the new year and drops the oldest of the ten preceding years as a basis for determining the parity price of individual farm products.

The change from the old to the new parity formula changes the parity prices for individual farm products. In general, the parity prices of livestock and livestock products are increased, while the parity prices of grain and cotton are reduced slightly. However, the average parity prices for all farm products as a group are the same under the old and new parity formulas.

Some Other Provisions

The act further provides that, when the parity price of a farm product under the old and new formula is more than 5 percent of the old parity price, the adjustment to the new parity price will not exceed 5 percent of the old parity price in any one year.

The price support bill also provides for the support, at prices up to 90 percent of parity, of commodities other than the six basic ones. For this purpose such funds will be used as may be provided to the Secretary of Agriculture. The so-called Section 32 funds, which represent 30 percent of our import duties, are made available for farm price-support operations. In 1947-48 these funds amounted to 135 million dollars. At the present time 75 million dollars of this total are assigned to the school lunch program, leaving about 60 million dollars to be used to support various commodities.

The Commodity Credit Corporation, of course, is permitted to support prices of products within reasonable limits if the products are storable and can be handled without too great a carrying charge. Section 32 funds, however, may be used to help support the price of perishable products. As a matter of fact, they represent a larger amount than has been used in any year, except for subsidy payments made during the war years to hold down prices of food products.

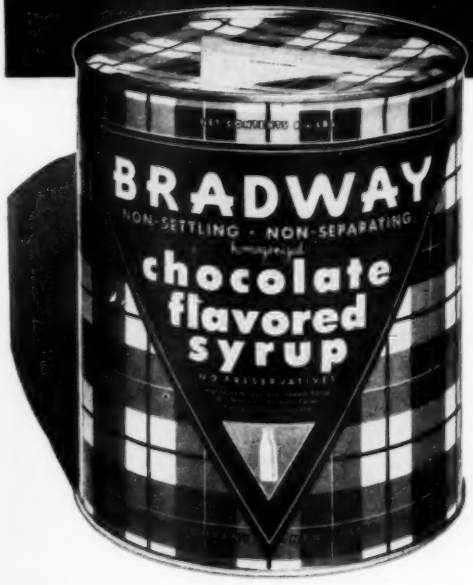
Some features of the Senate bill dealing with the reorganization of agencies to handle various services that the government renders to farmers were eliminated from the bill in the conference between the Senate and the House. It was the intent of the Senate bill to place more responsibility on local farm people for directing the operations of the various agencies through which the federal government deals directly with individual farmers.

However, the price-support legislation which was retained in the bill accepted by both Houses is constructive in affording a transition from the present wartime price program to a sound long-time price-support program. The essential feature of the long-time program is that the support varies inversely with the supply of the product.

This provision should give farmers adequate opportunity to adjust their production in line with changes in demand, because the price supports, which will be higher for products in short supply, will stimulate production of those commodities.

Chocolate Milk Made With Bradway's

CHOCOLATE FLAVORED SYRUP



No. 10 tin, above, dressed up in a new package design, is convenient size for your use or your customers'. BRADWAY Chocolate Flavored Syrup also comes in 5-gallon pails and in home-size (12 oz.) jars for sale through your retail outlets.

Tastes better! Sells faster!

Summer time is selling time for chocolate milk because long play hours for the youngsters burn extra energy and build extra hearty appetites. You'll add new customers to every route . . . increase deliveries to every customer, when your chocolate milk is made with BRADWAY Chocolate Syrup.

BRADWAY syrup is rich in nourishment and flavor . . . strong and always appetizingly uniform in color. Non-settling too! It mixes easier, tastes better, sells faster—more profitably! Boost chocolate milk sales this vacation. Write today for details on unusual introductory offer. ***Ask your jobber!***

BRADWAY CHOCOLATE COMPANY, NEW CASTLE, INDIANA

Bradway Chocolate Flavored Syrup

NDC FILMS ARE POPULAR

Careful Planning Is Secret in Development of Dairy Industry Pictures That Are Reaching More Than Two Million Consumers Annually

CHICAGO, ILL.—YOU WANT Johnny to do what you want him to do along intelligent and constructive lines. Then you begin to educate him. Right soon in his education you discover that movies and pictures play a dramatic and compelling role.

Well aware of the great possibilities in effective use of pictures, the National Dairy Council is devoting a vital part of its educational program to films that sell dairy products—and set up *habits* for use of milk, ice cream, cheese and butter.

This dramatization of dairy products by pictures (which educators call visual education) does give concentrated attention and interest and conviction to dairy products. But do Americans, young and old, get the message? Do they see the films? A look at the records tell this merchandising story:

The National Dairy Council films are being shown each year to an average of 2 million selected persons, and at an exceedingly trivial cost per capita.

AND those 2 million include thousands and thousands of school children (who are tomorrow's home makers) and highly important consumer groups, such as parent-teacher associations, public health bodies, prenatal clinics, and so on.

The adult members of these 2 million, of course, affect many more children, and they influence other adults as well.

In doing its job for dairy products, the NDC picture library offers these popular and convincing films.

"How to Make Cream Sauce," a new slide film in color, for the instruction of high school girls and adult groups in the preparation of nutritious, good-tasting meals.

"Whenever You Eat," also in color, a movie which shows that health is important for the realization of any chosen vocation, and it gives great emphasis to proper food habits and the advantages of dairy products.

"America's Favorite," a movie in color concerning the interesting subject of ice cream, its production and its importance as a basic food.

"More Life in Living," a movie dramatizing the rewards of proper eating, featuring the nutritional importance of milk and milk products.

"Husky and Skinny," another movie. Skinny decides that milk is worth drinking, after a competition with Husky, and novel sound effects give the film an appeal to all age groups.

And still used, frequently, a wartime movie called *"America Learns to Fly,"* produced with the approval and assistance of the War Department, stressing the importance of good health through sound nutrition.

INDUSTRIAL ACCIDENTS DOWN

Industry closed its books on 1947 with a better safety record than the year before, according to the National Safety Council.

The 1947 industrial injury rates, released in advance of the 1948 edition of "Accident Facts," the Councils annual statistical yearbook, show that the over-all accident picture is improving.

The accident frequency rate for all industries submitting company reports to the Council, based on the number of disabling injuries per 1,000,000 man-hours, was 13.26 in 1947, a reduction of 10 per cent from the year before.

All these visual aids, these effective merchandisers of dairy foods, were not created casually. Quite the contrary. They were planned with great care and skill, because the Dairy Council knows that pictures, properly done, are one of mankind's most effective educators and persuaders.

Result of Many Minds

There's an Advisory Committee on Visual Aids on which are representatives from the National Dairy Council's half a hundred affiliated units. In addition, there are nationally known experts in audio-visual aids, and child development experts, and nutritional and educational leaders from the NDC's headquarters staff in Chicago.

Reaching out into all important areas of education and youth, these committee members obtain hundreds of expressions from teachers and youth workers.

These expressions are summarized into one basic concept for each new Dairy Council movie (a new one is being developed annually.) Then after months of great preparation, the dairy industry receives the impetus of another film, as up to date as the latest edition of your favorite newspaper, glamorizing and dramatizing the nutritional benefits of milk, ice cream, cheese and butter.

And every film in the Dairy Council library is welcomed by teachers into their class rooms, is welcomed by consumer groups, and professional meetings —because it's planned to do just that.

Then, when a movie is finished, scores of prints are made available for cost-sales to Dairy Council units and to industry groups.

But nothing is left to chance. For instance:

A carefully prepared teacher's and leader's guide (anybody can use it, though, for almost any kind of audience) goes with the film. It strengthens the nutrition teaching of the film.

And then there's the planned promotion of each film through booking bureaus all over the United States—in this way grade and high schools, colleges, clubs, YMCA groups, churches and various kinds of industries are effectively reached.

Thus these movies and visual aids are seen and enjoyed by thousands and thousands, never duplicating an audience with the same film, but all adding dramatic effectiveness to the Dairy Council's vast program of selling through sound education.

And so it is that the Dairy Council, daily in every part of the country, helps turn impulse buying and consumption of dairy products into habit use.

CORNELL OFFERS NEW COURSE

New York College Sets Up Intensified Program Giving Concentrated Year in Dairy Manufacturing

DAIRY MANUFACTURING can now be studied as a one year course at Cornell University. In response to numerous requests the College of Agriculture has set up an intensified program to include most of the dairy courses given to the four year student. A special comprehensive course in dairy industry has been added for students of this one year plan. The complete curriculum is as follows:

First Semester—

Agricultural Bacteriology	3 hours
Agricultural Geography	3 hours
Introductory study of milk and milk products	4 hours
Mechanical Drawing	3 hours
Oral and Written Expression	3 hours

Second Semester—

Market Milk and Manufactured products	5 hours
Marketing Dairy Products	2 hours
Farm Mechanics	3 hours
Elementary General Psychology	3 hours
Oral and Written Expression	3 hours

The course is specifically designed for students who expect to stay at the College only one year. On the other hand if a student makes and average of 75 or above and wishes to transfer to a full four year course, he may do so, and on transfer will receive full credit for the work he has already done.

Applicants must have graduated from high school and must present 15 units of entrance credit.

Inquiries should be sent to Professor L. H. Harden, Roberts Hall, Ithaca, New York.

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DAIRY INSTITUTE PROGRAM

Every phase in the manufacture of dairy products will be covered at the University of Minnesota's second annual Dairy Products Institute, W. B. Combs, Professor of Dairy Husbandry, announced recently. The Institute will be held on the St. Paul Campus of the University, September 20-23.

Special days have been set aside for the different types of manufacture. The cheesemakers will meet Monday, September 20; buttermakers, September 20-21; ice cream manufacturers, September 21; market milk producers, September 22; dry milk manufacturers, September 22-23; and dairy plant fieldmen and inspectors, September 23.

Top flight experts in the field will speak at the sessions which are being planned to meet the needs of the dairy products manufacturer.

Besides the University of Minnesota staff, several outside speakers have been obtained for the course. Among these are Russell Fifer, Executive Secretary, American Butter Institute; L. C. Thomsen, Professor of Dairy Husbandry, University of Wisconsin; Dr. C. D. Dahle, Professor of Dairy Manufacture, Penn State College; and Hugo H. Sommer, Professor of Dairy Industry, University of Wisconsin.

VIRGINIA WINNER

As the Dairy Queen looks on from within a simulated milk bottle the champion Jersey of the Virginia Polytechnic Institute's Dairy Show and her proud owner pose for the camera.

"King Zeero"

ICE BUILDER

Adaptable to your individual Cooling Requirements

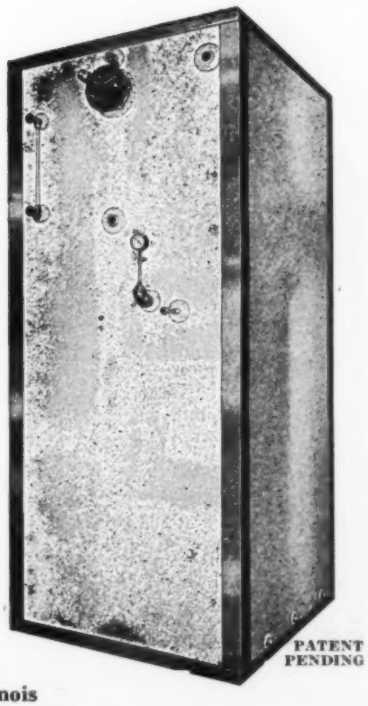
- Streamlined in appearance . . . in performance.
- Low in initial cost . . . inexpensive to operate.
- Convenient as your nearest water tap.
- Dependable . . . service day in day out.

In big plants . . . in little plants . . . The "King Zeero" Ice Builder has become the guardian of quality. Under the trim exterior of this flexible unit is concentrated the cooling power of tons of ice . . . as accessible as your nearest water tap . . . ready to cool your entire production . . . REGARDLESS OF PLANT CAPACITY. And King Zeero's unlimited cooling power is low cost. A comparatively small compressor performs for you all the time it's running . . . either helping cool water for current use or producing ice to be used in the future. Cooling capacity of this small compressor is multiplied many times because cooling loads are handled by a combination of melting ice and FLASH EFFECT. Temperatures lower than 32° attained by adding calcium chloride or other cooling point depressants.

Write for Bulletin 74

THE KING ZEERO CO.

1447-55 Montrose Ave. Chicago 13, Illinois



PATENT PENDING

WHIP TOPPING

Buffalo Firm Builds Sideline Into Profitable Business and Finds Increased Dairy Sales Result — Product Is Distributed in 39 States

By **ETHELYN WELLER**

WILBER FARMS DAIRY, Buffalo, N. Y., has proved that a dairy product, not actually a milk product, may be successfully handled by a dairy.

This dairy which began operations in October, 1895, was purchased in October, 1935, by Robert E. Rich, after his graduation from the School of Business Administration of the University of Buffalo. At that time the company was operating three horse-drawn routes, sold only quarts of milk and pints of cream, with no wholesale accounts. They now have 14 retail and 5 wholesale routes, covering Buffalo and Hamburg, a large town some 18 miles from the city.

The new product is a soy bean product called Whip Topping; the newly formed corporation is the Rich Products Corporation. According to Mr. Rich the new product, rather than draining away business from the dairy has actually resulted in an increased dairy business.

Mr. Rich now spends all of his time on the operation of the new company. The dairy is in the hands of Montgomery Deet who has been with Mr. Rich since he purchased Wilber Farms.

Said Mr. Deet, "We attribute a considerable part of our increased wholesale business as well as a large number of additional retail customers to the prominence gained by the new product. We feel that it is responsible for at least three of the extra wholesale routes."

Whip Topping is a frozen topping, made from vegetable products. It contains no milk or other dairy products. Contrary to the opinion of some people, Whip Topping does not harm heavy cream sales, rather it increases them. Whip Topping is being used by many bakers and institutions in place of egg white and other toppings and its use is making consumers of these products more conscious of a topping for desserts and leads to increased cream sales.

Mr. Rich found that the majority of all items sold by the baking industry and labeled as cream products, were not dairy cream, but marshmallow or similar products. Bakers found that by using Whip Topping they obtained a much longer shelf life, as Whip Topping, being purely vegetable, contains no animal putrefaction. Furthermore as soy protein is in itself a whipping agent, bakers were able to increase their volume for a topping by four times when using Whip Topping.

Robert E. Rich of the Wilber Farms Dairy and his secretary Miss Jean Golding. Whip Topping has increased sales of milk products for Mr. Rich's dairy.

Originally Whip Topping was sold in milk bottles and handled from the Wilber Farm's milk routes. However, this practice was soon discontinued and the topping is no longer sold on the dairy routes. It is handled by frozen food distributors in 39 states, Bermuda, Hawaii, and Alaska. Whip Topping became a frozen product and sold in paper containers after about the first six months.

This change made it necessary to greatly enlarge the size of the plant adjacent to the dairy building, where Whip Topping was manufactured. A $25,000 building was added, $45,000 for additional refrigeration equipment and $40,000 for new machinery was needed.

Mr. Rich found the operation of the frozen food business substantially different from that of Wilber Farms Dairy. For instance, it was felt that little definite sales benefits were realized following milk advertising and consequently the dairy pursued a policy of very limited advertising. This policy, however, was changed in the frozen food operation. Last year more than $35,000 was spent for advertising in trade papers, window streamers, recipe folders, booklets and other promotional material.

After three years of work with the new product, Mr. Rich is able to derive a good deal of satisfaction from the fact that his two enterprises compliment each other so well. "They make a good pair," says Mr. Rich. "The sales of each supplement those of the other." The important fact, from the dairyman's point of view, in relation to Mr. Rich's operation is the fact that the introduction of Whip Topping not only failed to interfere with heavy cream sales but actually acted as a spur. Probably a part of the reason for this happy dovetailing of the two enterprises rests with the good sense of Mr. Rich. However, the experienced opinion of both Mr. Rich and Mr. Deet is that the new product of itself, through the additional prominence that it brought to the company, was definitely responsible for a large portion of the increased business that the firm has enjoyed.

UNITED NATIONS BUYS MILK - EUROPEAN PURCHASES EXPECTED

Scarcity Plus Increased Prices Make Buying Difficult— Supplies From Australia and New Zealand Are Helping

A FIRST EUROPEAN PURCHASE of milk by the United Nations International Children's Emergency Fund – 4,400,000 pounds of powdered milk from Sweden was announced here today. Other purchases on the Continent are likely to be made soon, it was stated.

The Fund, it was explained, is experiencing a great deal of difficulty in getting this commodity in sufficient quantities, and at a price which makes its use feasible in the Fund's large-scale feeding program. The main source of supply has been the United States, the world's largest producer of milk in powdered form. Last year, the Fund purchased some 69,000,000 pounds, most of it from United States producers. This year, a sharp price rise, from 9 cents to 13 cents a pound, and its apparent scarcity even at that price, have the Fund concerned, officials let it be known.

A large purchase in Canada is helping out, and other supplies are in sight in Australia and New Zealand, and in some of the European milk-producing countries, but "it takes a lot of milk to get even a little to each child when you have millions around the table," as Mr. Karl Borders, the Fund's supply chief, stated the matter.

The Fund, Mr. Borders said, is now considering a shift from milk on which it has been largely dependent to other economical protein products, for "we must buy now, if the food is to reach the children in steady supply this coming winter, and we must buy to the best advantage, for we have millions of hungry children to feed and a very limited budget."

The Fund currently is helping to supply a daily supplementary meal for from 4,000,000 to 5,000,000 children in 12 European countries and will soon begin feeding operations in China.

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SALES MANAGER RETIRES

Philadelphia—Frederick G. Rodenburgh, New York District Sales Manager for the Pennsylvania Salt Manufacturing Company, retired July 16 after nearly 50 years of service with the company.

The company, in announcing Mr. Rodenburgh's retirement, said that effective Monday, July 19, the New York sales office will be consolidated with the Paterson, N. J. sales office, located at 152 Market Street, Paterson, 1.

Mr. Rodenburgh joined Pennsalt in 1899, when he was only 16, as an assistant in the New York sales office. He later became sales agent for the company at the New York office and in 1936 was named New York District Sales Manager.

Charles A. McCloskey, District Sales Manager, will be in charge of the new consolidated office, which will handle Pennsalt sales in Eastern New York State, including the New York City metropolitan area; the New England States, and Northern New Jersey.

Mr. McCloskey, a graduate of the University of Michigan, joined Pennsalt in 1929 and in 1944 was appointed New York District Sales Manager.

Seamless Weld
DAIRY PAILS

Superior dairy pails incorporate every detail for greatest sanitation, ease of handling and long, efficient service. Smooth as glass, they're triple tinned, all welded . . . the finest, longest wearing quality dairy pails available.

Dairymen everywhere know the real long-run economy in using Superior metal dairyware.

Write for information on the full line of seamless weld pails... and for our catalog showing the complete line of Superior metal dairyware.

Superior METAL PRODUCTS COMPANY
509 FRONT AVENUE ST. PAUL 3, MINN.

(Continued from Page 28)

should be on a par with that of all other trained personnel, for this man handles valuable machinery, expensive bottles, but above all, the quality of his work can win or lose customers. Every effort should be made to have this operation in the hands of a permanent employee, who will become acquainted with the equipment itself as well as the fundamentals of good bottle cleaning procedure and who will make sure at all times that he is getting the most from the tools which have been placed at his disposal. Finally, adequate supervision must be the rule in order to insure that the high standards are maintained. Even with all the modern advances that have been made in equipment, materials and methods, a large part of a good bottle cleaning job is still dependent on the human element involved.

Control Those Temperatures!

Again I repeat the vital necessity of proper heat control of the various solutions. Whether you use a small brush washer or a large soaker type bottle cleaner, heat is a constant and indispensable companion in your efforts to obtain a properly cleaned bottle, as both the washing and germicidal action of the solutions and rinses are most effective when kept at the correct temperatures.

In both pressure and soaker machines, bring the various tanks to the temperatures recommended by the manufacturer. Once there, check constantly to make certain that these temperatures are maintained throughout the entire cleaning operation. Cold bottles are constantly passing into the machine, robbing the solutions of their efficiency-giving heat. Unless equipped with automatic steam regulators, additional steam must be introduced from time to time. So I repeat—bring the temperatures up and hold them there!

The Solutions

Excellent progress has been made by the various chemical manufacturers in developing caustics and cleaners for bottle cleaning. More effective compounds, with the addition of wetting agents, have created cleaners which assure excellent results if only used properly.

The selection of the correct compound must take into consideration the type of equipment being used, whether soaker, pressure or brush machines. Local water conditions must also be taken into consideration, for as mentioned above, the degree of hardness has a bearing upon the choice of the compound and the quantity used.

Generally, the safest way to select the proper cleaners is to ask the help of your local dairy supply salesman or the sales representative of the chemical manufacturers. These men are generally intimately acquainted with local conditions and can best recommend a short-cut solution to any particular problem which may arise. They can also advise the proper quantities for the various tanks.

The same care must be taken to maintain the strength of the solutions as is taken in the matter of temperatures. The continual introduction of bottles into the successive treatments weakens the solution and replacement quantities must be added. Be careful that this is done. The mechanical cleansing action of the large volume of solution into and around the bottle cannot have its full effect unless the equally necessary chemical action takes place. This chemical action can be fully effective only if sufficient concentration is maintained.

WANT TO WASH A TEMPLE?

Got any extra milk? You'll need it if you want to visit an Indian temple as Earl Mountbatten, former Governor General of India, did.

After a recent trip into the inner sanctuary of the Seringapatam Temple in Mysore State, India, Mountbatten was informed that the whole thing would have to be "purified". To purify the shrine Hindu's wash it twice—first with water and then with milk!

Chlorine has become widely accepted as the sterilizing agent to give the final treatments to the bottle. There is much to be said for its use, notably that it has a positive germicidal action, yet is used in cold solution. Thus the bottle can be filled immediately as it comes from the machine. Care must likewise be exercised that the concentration of chlorine is constantly maintained. Choose a good chlorine product and carefully follow the manufacturer's recommendations in using it.

Timing

Timing is another essential part of good bottle cleaning procedure. The length of time the bottle is subjected to the various treatments in a soaker type machine can be mechanically set. In the pressure type machine, however, the timing of these treatments is at the mercy of the operator. Do not let your operator short-change a single treatment!! If you do, the results will suffer. The operator must allow a full minute treatment for the caustic wash, a full thirty seconds treatment for the rinse and a full thirty seconds for the chlorine sterilization treatment. Less than this specific time will jeopardize the clean, sterile results pressure bottle cleaners are well capable of delivering. Where steam is the sterilizing agent, the bottles must remain in contact with the steam until heated to sterilizing temperature.

Watch out for the extremely dirty, or "dump" bottle. The treatment which is sufficient for the average bottle may not be for this particular dirty individual. Let them soak in a caustic solution for a time sufficient to completely loosen the solids incrusting the glass. Then brush them with a brush washer before placing them into the machine.

Maintenance

Bottle cleaning equipment must be maintained in the best possible condition if the dairy expects to realize all the fine performance the manufacturer has built into the machine. The plant operator should set high and definite standards of maintenance and insist that they be kept. A dirty machine will soon begin to give a like performance.

If you use a soaker type machine, drain, clean and scrub the soak tank and other tanks on a regularly set routine schedule. Do not let them go too long without attention. Rigidly follow the recommendations of the manufacturer. On pressure type machines, the alkali, rinse and chlorine tanks should be drained and scrubbed each day at the end of the bottle cleaning operation.

The jet openings on both type machines should be kept thoroughly clean, for a clean opening is indispensable to the efficiency of the equipment. On the soaker, brush through the headers each day with a long handle, stiff bristle brush. On the pressure cleaner, push through each jet with a full size wire and open the cleanout doors for a complete flushing.

Screens should be cleaned at least once a day and oftener if the run is heavy.

Keep the pumps going at full efficiency. Keep the packing only tight enough to allow an occasional drip at all times for lubrication. Inspect the packing periodically and replace it when necessary.

Keep all piping and pumps free of lime deposits by using a good commercial lime solvent. Such deposits left unattended will grow to be a real problem.

Good washing routine, if properly organized and faithfully carried out, can go a long way towards creating a proud record of dairy sanitation. Every good dairy, jealous of the quality of its products and the reputation it enjoys in its market, cannot afford to be satisfied with less than complete sanitation. Correct bottle cleaning is a fundamental part of complete sanitation.

Dairy Industry Show to Surpass Previous Exhibits

More Than Three Hundred Exhibitors Will Have Displays at Mammoth Atlantic City Show October 25-30

As preparations move into intermediate gear, it becomes increasingly evident that the Dairy Industries Exposition of 1948 will be a world record event, Dairy Industries Supply Association recently announced.

The Show, slated for October 25-30 in Atlantic City, New Jersey, will include a larger number of exhibitors—well above 300—than the first post-war Show of 1946. All are member companies of DISA.

More than six acres of space in Convention Hall, one of the world's largest auditoriums, will be devoted to display purposes. This represents a 25% increase in space usage over the preceding Show. It has been estimated that a visitor will have to traverse some three miles of aisle to do complete justice to all the exhibits.

"Not less than fifty carloads of actual supply and equipment items and of display accessories will be shipped to Atlantic City, where the application stories of more than 2,500 products and services will be tangibly told", a DISA spokesman said. "Under one roof, visitors will see the product of many factories—the massive equipment and the intricate refinements. It will be possible to transact a maximum amount of business with authoritative executives of supplier and equipper concerns in a minimum of time.

"Every aid to and facility for production and distribution will be on display—not only the supplies and equipment used by the dairy industries, but the merchandising and display ideas and utilities, and the new methods; not only the tested standbys and all that is modern and efficient, but a look-see into the future— as brought out by research endeavors in various fields. Truly this will be a giant Show—a mammoth progress pageant for the dairy industries."

HARRY HOLLAND DIES

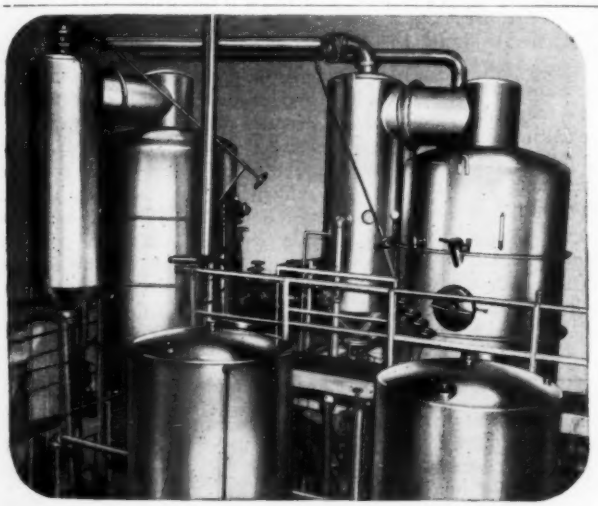
Harry Holland, prominent in the milk business and for many years President of Holland Farms, Inc., of Brooklyn, N. Y., died July 3rd, last, at the age of 64 at his home in Neponsit, L. I. His father founded the family's Long Island milk business in 1889. Harry Holland was active in many phases of the dairy industry and was prominent in a number of Brooklyn philanthropic organizations. Funeral services were attended by representatives of all branches of the dairy industry of Metropolitan New York. Mr. Holland is survived by his wife, Sara, and their five sons, Frohman, Irving, Dr. Jesse, Norman and Morton.

●

E. R. LEGG ADVANCES

Edward R. Legg, formerly assistant general sales manager of Nash-Kelvinator Sales Corporation, Detroit, has been elected president of the Refrigeration Corporation of America. Mr. Legg also becomes general manager of Noma's Refrigeration and Stangard-Dickerson Divisions.

Walter Raskin, for many years works manager of Stangard-Dickerson, has been placed in charge of manufacturing operations at the Refrigeration Division plant.



Multiply Your Markets
WITH A ROGERS VACUUM PAN

The 2 Rogers vacuum pans and 2 Rogers hot wells, above, installed in the Wilkesboro, N. C., plant of Coble Dairy Products, Inc., are typical examples of the dairy industry's trend toward product diversification. Large and small plants alike can enjoy the many advantages of Rogers high-production equipment. Get the facts. Write for a copy of our new catalog.

"The Choice of Dairyland" Since 1883.. Rogers

C. E. ROGERS COMPANY, 8731 WITT ST., DETROIT 9, MICH.

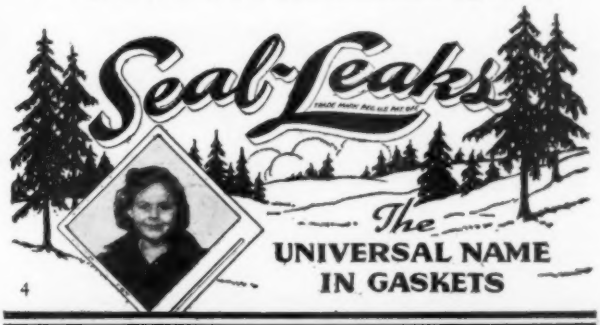
Concentrated Goodness -

IN *SEAL-LEAKS* — a whole list of overlooked superlatives, all converging on your own milk closure problems! ★ ★ ★

Resilient, odorless, tasteless Beaverite stock fresh from the piney northern forests. An automatic cut and perfect fit, always. Sanitary neostyle unit packages that keep the unused gaskets always sweet and clean. A universal assortment of sizes. And an unbeatably handy nation-wide Jobber hook-up —

These and other unique advantages explain the Seal-Leak habit in so many of the most up-to-date milk plants the country over. Certainly—special sizes and thicknesses promptly to order. Let your Jobber have your sample.

Ask your Jobber for SEAL-LEAKS by Name.



BEAVERITE PRODUCTS, INC.
Beaver Falls, New York, U·S·A·

Metal Shortages, Armaments Limit Dairy Equipment Supply

Dairy Industry Supply Association Reports Clouded Prospects In Supply Picture For Next Six Months

DAIRY INDUSTRIES SUPPLY ASSOCIATION, in a mid-year limited analysis of supply and equipment production circumstances, takes into account an existing shortage of carbon steel, tightness in the supply of tin, and a possibility of at least minor shortages in certain other metals.

These and other factors deriving both from the European recovery program and military preparedness prospects—together with more localized circumstances—lead to the suggestion by DISA that dairy processors moderately anticipate their near and intermediate future requirements.

DISA cites these facts and observations:

Shortage of Carbon Steel, Tin and Other Metals

The carbon steel shortage has not yet reached alarming proportions, but it affects the production of many items of dairy processing equipment, of delivery equipment, of several essential types of containers and of certain merchandising and point-of-sale requisities, and indirectly, of course, it bears upon the availability of many operating essentials in every field of manufacture. The very tight situation in tin similarly affects many items. Particularly dairy plant equipment, delivery equipment and container manufacturers are closely watching not only steel and tin availablity, but tentative evidences that similar shortages may appear, as armament and European recovery activities mount, in stainless steel, cast iron, brass, copper, aluminum, and lumber.

Unbalanced Inventories in Equipment Manufacture

Currently, dairy plant equipment with very few exceptions is in improved supply as compared with any earlier period since the war. However, equipment companies find it difficult to maintain balanced inventories of materials and of component parts.

Milk cans are, roughly, on a nine-months' delivery schedule.

Primary refrigerating equipment is available on, roughly 60-days' delivery.

Ice cream cabinets and soda fountains are in generally improved supply, with their manufacturers also concerned with potentially unfavorable developments in the metals field.

The containers situation differs in accordance with the materials of fabrication involved. Glass bottles are in good supply. The various types of paper or paper board containers are in improved supply. Paper and paraffin supplies, it is recognized ,may be somewhat affected, although not necessarily critically, by the defense and the European recovery programs.

Truck Production Slowed by Lack of Steel

Trucks, refrigerated truck bodies and truck tanks production is conditioned by the same factors that apply to automotive production and to large storage equipment production generally. Shortage of steel has so far reduced 1948 planned production by some companies of special light delivery trucks by as much as one-third, although there has been up until now probably overall a gradual catching up on orders. In the last quarter of the year heavy duty trucks may well revert to a 90-day or longer schedule of delivery. Trucks in the medium and light heavy field are in about the same relation to supply as they were six months ago, with deliveries averaging not beyond 60 days. Sound preventive maintenance programs for all units are, of course, recommended.

Ingredients Outlook Mixed

War engendered problems still affect the supply of many of the ingredients used by dairy processors. The cocoa bean situation has deteriorated rather than improved. Vanilla supplies from French-controlled areas are not in supply at practical prices but substantial stocks are available elsewhere. Vegetable oil supplies must be closely watched. Adequate cane sugar is and presumably will remain available; the corn prospects indicates that corn sugars may be in adequate supply but the price trend is expected to be upward. Supplies of fruits, other than dried, and of other basic flavoring materials will probably be only slightly affected by the course of the European recovery program. Like the dairy processors, the producers of the various ingredients which are required by the dairy industries are closely dependent upon the supply of containers.

Watchful of Sanitation Products Situation

Overall, dairy sanitation products demand and production are in better balance. Because of the military preparedness situation it is questionable, however, whether certain items of raw materials which have only recently become adequately available will continue to be obtainable by the sanitation products companies in sufficient volume for the rest of the year. The manufacturers are closely watching this situation.

QUAKER DAIRY TELEVISED

Bringing to a climax a series of June Dairy Month activities in Philadelphia was a half hour television program presented over Station WFIL-TV in cooperation with the Philadelphia Chamber of Commerce.

Miss Grace K. Nadig, Director of the Department and Associate Professor of Home Economics Education at Temple University, interviewed G. G. Diffenback, chairman of the June Dairy Month committee; and Thomas Waddell, Vice-President and General Manager of the Milk Distributors Association of the Philadelphia area. The interviews were designed to acquaint the public with the facts behind the current milk price rise and to inform consumers of the purpose for the annual June Dairy Month campaigns.

The Milk Industry Foundation's film MILK PARADE and the Philadelphia Dairy Council's POWER were also televised on the same program.

●

THATCHER TRANSFERS

It was announced today by Mr. R. K. Boeckman, Vice President of Plant Operations of Thatcher Glass Manufacturing Company, Inc., that Harry J. Mullany had become the Manager of the Thatcher Elmira plant.

Mr. Mullany was formerly the Manager of the Thatcher Olean plant. He is well known in Elmira, as he held the position of Plant Manager at the Elmira plant until November 1, 1945 at which time he took over the same duties at Olean. Mr. Mullany has been employed by Thatcher for the past eleven years.

Mr. Andrew E. Mauro, former Plant Manager at Elmira, is now a member of the General Staff of Plant Operations.

Universal Bottle in Columbus

(Continued from Page 46)

buying in large enough quantities to receive the lower price. At the present time one obtains the lowest price per gross if buying three thousand gross a year.

2. The exchange of bottles is eliminated. There are several steps saved here.
   (a) Time need not be consumed to sort out competitors' bottles
   (b) Storage space is not being used by foreign bottles
   (c) Not necessary to make frequent trips to exchange headquarters to exchange bottles
3. The elimination of the exchanging saves considerable wear and breakage of bottles.
4. More effective returns on the bottles from the consumer.
5. Less total bottles tied up in inventory.

In addition to lower costs other advantages are:

1. Grocers and milkmen are not bothered with more than one type bottle.
2. Housewives will have less difficulty returning bottles.
3. Such a plan tends to promote better relations between competing dealers.

Uniform Deposit Plan

Another essential factor in most container costs that has not been mentioned is the use of a uniform bottle deposit plan. There may be a difference of opinion of what this amount should be but it should be near the initial cost of the bottle. In Columbus the deposit charge is three cents, and the drivers on both retail and wholesale routes are charged for all bottles short. The grocers are charged and credited three cents for all bottles so that practically all grocers charge the three cents deposit also. The retail driver does not charge his customers but does keep a very close watch on each customer's bottle returns and makes certain that he gets all of his bottles back because if he doesn't he is charged with those that he is short. The success of a deposit plan depends on the attitude and the enforcement of company management. The plan must be followed and every employee made very conscious of its importance.

It is well to have a concerted bottle return campaign periodically during which an effort is made to inform employees, drivers, grocers, and consumers of the importance of returning all empty bottles. In Columbus this is done through newspaper releases and ads, radio spot announcements, bottle hangers and meetings with the drivers.

The one single disadvantage to such a universal bottle plan which is frequently mentioned, is that the individual advertising value of a dealer's own bottle is lost. However, the dealers in Columbus are of the opinion that one loses very little from this as each still has his own distinctive enclosure or cap.

●

WORTHINGTON TO REPRESENT PELOUZE

George F. Worthington & Associates, Minneapolis, Minn., has been appointed exclusive factory representative for the Pelouze line of scales in Minnesota, Wisconsin, Iowa, South Dakota, and North Dakota.

This five-state area will be covered by George F. Worthington, Jr., Frank E. Reed, Jr., L. W. Carlson and R. W. Bley.

The Worthington organization has served midwestern hardware, farm equipment, and allied trades for 27 years. The Pelouze Company, Evanston, Illinois, has been for many years manufacturers of precision scales.

Another

STAMSVIK *First*

FILTER

● A center tie rod of open fluted construction and open end core nut. **ALL STAINLESS STEEL,** of course. Simple heavy construction . . . the ultimate in easy cleaning and sanitation. Interchangeable for replacement use in all earlier filter models. See your dealer or write direct for details of our All Stainless Steel Filter Program.

SANITARY MFG. CO. OF PITTSBURGH
Successors to — Stamsvick Manufacturing Corporation
1513 LOCUST CORNER MARION PITTSBURGH 19, PA.

DAIRY DATE OF '48
OCTOBER 25-30
dairy INDUSTRIES EXPOSITION
ATLANTIC CITY

SIX ACRES OF EXHIBITS --
MORE THAN 2,500 PRODUCTS AND SERVICES . . A PRACTICAL UNIVERSITY OF DAIRY PROGRESS.
IT WILL PAY YOU TO KEEP THIS "DAIRY DATE OF '48".

TANK TRUCK GOES TO THE FARM

(Continued from Page 4)

used in milking machines. The hose is thoroughly washed at the plant and then plugged with a 4 per cent lye solution. The lye solution is kept in the hose until the truck arrives at the first stop in the morning. This solution is then emptied out and the hose is sterilized with a chlorine solution before it is used. In order to protect the hose from contamination from highway dust between stops it is proposed to store it in a metal tube located on the truck's catwalk near the pump.

Cost to Be Reasonable

No cost figures are available yet, due to the experimental nature of the project. The expectation is, however, that the entire holdings—tank-surface—cooler combination will not cost much more than the cooling tanks and motors now in use with the can operation. The holding tanks and direct expansion surface coolers used in the Bryant and Chapman tests were designed by engineers of the Creamery Package Manufacturing Company.

Rapid cooling and elimination of the cans has had a remarkable effect on quality, particularly taste. There was a splendid clean flavor about the milk that was clearly noticeable. Indeed each of the six producers involved in the project emphasized the improved quality of their milk over what it was when they used cans. Another fact which these men stressed was the composite nature of the milk. "This way we get milk from the whole herd, not just from one or two cows" was the general opinion.

Results in Superior Product

According to Mr. Sartain, the producer's reaction is borne out by plant men. "We are getting a much superior product by this system," Mr. Sartain said. "The milk comes in contact only with stainless steel surfaces. There is complete and rapid cooling almost from the moment the milk leaves the cow and that low temperature is maintained during the trip to the plant." Mr. Sartain also pointed out that the presence of a piece of shining stainless steel equipment in the milk room had a happy psychological effect on the producers. "Elimination of water cooling tanks makes milk rooms much more roomy and also tends to make the farmer take take a greater degree of pride in the appearance of the room. It is as though he felt an urge to bring his premises up to the standards of sanitation and cleanliness that the holding tank symbolizes."

Perhaps the most inspiring feature of the operation is the unanimous endorsement of the producers. There are eight tanks located on six farms in the present tests. The farms, with the exception of one, were working dairy farms. They were not show places. The farmers were farmers in the business to make a living. Said Walter C. Jensen, "I wouldn't go back to the old system if you paid me." Said Grant Langdon of Langdonhurst Farms, who has two tanks, one on each farm unit, "If Bryant and Chapman takes this tank truck off I'll look up another handler that'll put one on." And George Miller, a middle aged man who is a sort of summation of all the things characteristic of an American farmer, including brevity of speech, said all that needed saying when, in answer to the writer's question, he remarked, "I like it."

Remarkable Savings Recorded

And well might producers "like it". O. W. Jauncey, manager of The Hedge, nationally known purebred Holstein establishment producing a ton of milk a day, has kept accurate records under both the can shipment system and the tank truck system. Mr. Jauncey figures that the shrinkage of 3½ to 4 per cent with which he had to contend under the can operation, has been reduced to ½ of 1 per cent under the tank truck system. This factor alone represents a dollar and cents saving of $1500.00 a year on today's milk market. Other producers expressed the same opinion.

A marked reduction in labor costs was likewise experienced by the producers. Mr. Jauncey calculated his labor saving as amounting to more than $800.00 a year. This figure combined with the shrinkage dividend gave him a total saving of $2300.00 under the tank truck operation.

It is in the butterfat tests and the measurement of the quantity of milk that the new system achieves its most remarkable results. If there is any source of friction between producer and dealer that has generated more heat than butterfat tests and pounds of milk weighed in at the plant, we have yet to hear of if under the Bryant and Chapman system these fertile breeding grounds of disagreement are practically eliminated. The producer sees the samples taken from his holding tank. If he cares to he can take a sample from the tank himself and have it tested as a check. There is no room for argument here. The milk is in the tank. It is the milk that the producer put in there himself. No one but the producer has had anything to do with it. He is in the milk room when the sample is taken. He sees the driver put the sample into the bottle with his number on it. He is as sure as it is possible to be that the sample on which his butterfat test is made is a proper sample of his milk.

Similarly he is sure of the quantity of milk that he ships. The measuring rod that the driver uses to determine the amount of milk in the tank is carefully calibrated for each individual tank. The measurement is taken from a specific point in the tank and each producer is satisfied as to the accuracy of the scale. The results of the driver's reading are made out on duplicate slips, one of which the producer keeps. These readings are the basis on which the producer is paid. If he doubts the driver's reading he can read the scale himself. There is no loss to the producer in transit because the paying measurement is made *before* the milk goes into the truck. Occasionally when Mr. Sartain makes the rounds with Leo Gould he treats himself to a drink of cool milk from the tank. It is a standing joke among producers to remark, "Hey, has Leo measured that milk yet?"

New experiments are customarily viewed with a skeptical eye. In this case, however, it is difficult to watch and wait. From where we are sitting the idea looks hotter than a dime store fire engine. It gives a product that is definitely superior in quality. It eliminates the bulk of producer-dealer difficulties. It saves the producer time and money. It saves the handler the bother and expense of handling and washing cans. It is just about as sanitary an operation as operations can be. It is simple and no more expensive than picking up milk in cans. It gives the producer some degree of control over his butterfat tests and quantity measure. It is, in short, a development that is loaded with the dynamite of change and has before it the promise of a tremendous future.

NEW INDIANA SECRETARY

Dick Larson, the Associate Secretary of the Ohio Dairy Products Association since January 1, 1947, and one of the friends of the industry of that State, left Ohio on July 1. He took over the management of the neighboring organization, the Indiana Dairy Products Association. His "call" to the Hoosier state came as a result of the long and serious illness of C. C. "Smoke" Hadley, who has served as Executive Secretary of that organization for several years.

His work as a member of the Dairy Technology Extension Staff of Ohio State University for several years made him hundreds of friends, and that number has increased greatly through his work with the Association.

In recognition of the work Dick has done the Ohio Dairy Products Association gave a dinner for all the Larson's, Thursday evening, June 24, at the Deshler-Wallick Hotel in Columbus.

RUTGERS GETS DR. J. G. LEEDER

Former Ramsey Laboratory Research Director Joins Dairy Dept. Staff

New Brunswick—Dr. Joseph Gorden Leeder, until recently director of research for the Ramsey Laboratories at Cleveland, Ohio, has begun his duties as associate professor of dairy manufacturing at the College of Agriculture, Rutgers University. His appointment was recommended to the University trustees by Dr. John W. Bartlett, head of the dairy department, and Dr. William H. Martin, dean of the College of Agriculture and director of the Agricultural Experiment Station.

Dr. Leeder is a native of Oil City, Pa. He attended schools in Columbus, Ohio, and received his bachelor of science degree from Ohio State University. He was awarded his master of science degree by the University of Vermont in 1940, and his doctor of philosophy degree by Penn State in 1944.

While at Penn State Dr. Leeder collaborated with F. J. Doan in developing a method of preserving milk by concentration and freezing. Whole milk was concentrated in a vacuum pan, homogenizing it, then frozen in a continuous ice cream freezer. The milk later was reconstituted. The process has met some success in actual practice in this country and has been considered by the Australian government as a means of supplying milk to the outlying sections of Australia.

The method was described in a paper under the title, "Milk Can Be Frozen for Sale to Consumers." Dr. Leeder also wrote bulletins relating to the flavor of milk.

Dr. Leeder is a member of Gamma Sigma Delta and Sigma Xi.

Dr. and Mrs. Leeder are residing at 30 Herbert Avenue, Milltown, a suburb of New Brunswick. They have two children, Joann M., 4 years old, and Frederic G., 2 years old.

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JESS W. FOGG DIES SUDDENLY

Cherry-Burrell Official Passes After Short Illness — Was Manager of Milwaukee Bottle Filler Plant

JESS W. FOGG, manager of the Cherry-Burrell Corporation bottle filler and capper factory at Milwaukee, Wisconsin, died suddenly on Thursday, July 8th, at the Sheboygan Memorial Hospital, Sheboygan, Wisconsin, following a short illness. He was 58 years of age. He is survived by his wife and a family of three boys and three girls, two of them are members of the Cherry-Burrell Corporation. Mr. Clyde Fogg is a sales representative of Cherry-Burrel's Detroit office and Richard Fogg travels out of the Cleveland office.

Mr. Fogg was born on July 26, 1889, at Sandown, New Hampshire. He spent his early boyhood in New England. His family later moved to Holland, Michigan where he attended high school and college.

He joined the Stout Manufacturing Company at Menominee Falls, Wisconsin, in 1926 where he engaged in the production and sale of soaker type bottle washers. Because of this association, he was widely known in milk plants throughout the country. When the Stout Manufacturing Company was purchased by Cherry-Burrell Corporation in 1933, Mr. Fogg joined the Cherry-Burrell organization and assisted in the design and manufacture of the Cherry-Burrell line of soaker type bottle washers. Later he joined the General Office Sales Department as a Machinery Specialist in the promotion of soaker type bottle washers and bottle fillers and cappers. During the war Mr. Fogg was assigned to the manufacturing division in the capacity of coordinating the manufacturing program on air plane fuel pumps for the U. S. Army Air Corps.

Upon the retirement of the late E. W. Neumeister, Mr. Fogg was appointed manager of Cherry-Burrell's Milwaukee factory as of February 1, 1944.

By Order of The Board of Directors
of the
FARMERS COOPERATIVE DAIRY ASSOCIATION, INC.
of NEW JERSEY
will sell at
PUBLIC AUCTION
Inventory $45,000
Milk Plant Equipment - Real Estate
on the premises at
COLUMBUS, NEW JERSEY
20 miles northeast of Philadelphia, Pa. 10 miles south of Trenton, N. J. 15 miles northeast of Camden, N. J. 6 miles east of Burlington, N. J.
SATURDAY, AUGUST 7th
Starting at 11 A.M.

This sale presents a unique opportunity for you Mr. Dairyman to purchase that much needed and hard to get stainless steel equipment all practically new made by Oakes and Burger, Kendall La Marr, Cherry Burrell, Westinghouse, General Electric, Etc.

Modern two-story brick, concrete and steel construction daylight building suitable for any type of manufacturing. Ceiling clearance 14'. Overall land area five acres permitting ample expansion. Pennsylvania Railroad siding. Approximately 12,000 sq. ft. of floor space.

This is a clean sweep sale as everything will be sold without limit or reserve.

Descriptive circulars mailed upon request.

Sale under Management of
B. G. COATS 490 Bath Ave.
AUCTIONEERS Long Branch, N. J.
J. W. BURNS Phone 6-3599
Members "National Society of Auctioneers."

LYOPHILIZED*
*New, high-vacuum, sub-zero drying process.
FOR
UNIFORMITY
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VIABILITY
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'FRIGIDRY'
TRADE MARK
DAIRY CULTURES

Save Time — Save Money — Avoid Trouble. Use rapid-growing 'Frigidry' cultures to produce mother culture in one generation and take guess work out of making good buttermilk, butter and cheese.

FREE—*Write for Booklet No. 206 on production of Cultured Dairy Products.*

GENERAL BIOCHEMICALS, INC.
25 Laboratory Park-Chagrin Falls, Ohio

Take The Guesswork Out of Production

H. B. Ellenberger Retires

Head of Vermont University Dairy Husbandry Department Retires After 31 Years of Service

Burlington, Vt.—Dr. H. B. Ellenberger, widely-known dairy educator, retired on July 1 as head of the Department of Animal and Dairy Husbandry, University of Vermont and State Agricultural College, Burlington, after thirty-one years of service.

He came to the University of Vermont in 1917, and was made head of the department a year later. When he

DR. H. B. ELLENBERGER

took over it was a one-man department. During his regime the staff has increased to nine full-time teachers and research workers.

During these years the number of courses offered was greatly expanded and a large amount of widely-recognized research initiated, completed and published under his direction. In addition, 18 graduate students qualified and received the degree of Master of Science in Agriculture under his guidance.

Organized Association

Dr. Ellenberger organized the Vermont Dairy Plant Operators and Managers Association, which was one of the first groups of its kind to be formed in this country. He served as its secretary from its beginning in 1921 until 1942, when he was made honorary secretary in recognition of his service to the industry and to retain his advice and counsel.

In 1931 he was president of the American Dairy Science Association.

In 1931 and 1932 he served as chairman of the New England Governors' Dairy Advisory Board and helped to set up New England Dairies, Inc., an organization designed to assist the dairy industry with problems arising in connection with the marketing of milk from Vermont and other New England States. Then he served for nearly a year as Administrator of the Greater Boston Milk Market Agreement.

Dr. Ellenberger is a member of Sigma Xi and Alpha Zeta organizations. He is now president of the Vermont Chapter of Sigma Xi.

●

SMAHA NAMED PRESIDENT

Oliver O. Smaha has been named president of the Chicago Milk Division of The Borden Company, it was announced today by Theodore G. Montague, president of the Company. Mr. Smaha has been executive vice-president of the Division.

Mr. Smaha started with Borden in 1924. He became chief accountant of the Chicago Milk Division in 1929, controller in 1931, assistant treasurer in 1935 and was made vice-president in 1940, and executive vice-president in 1941.

Mr. Smaha succeeds C. L. Dressel as president of the Division. Mr. Dressel was recently named district chairman of the Chicago-Central District of the company.

●

NEW ICE CREAM PLANT

The Waco Dairy has opened a new ice cream plant in Russellville, Alabama. The new addition will be headed by J. H. Thurman who will also continue as president of the dairy.

●

IAICM ELECTS HAGAN

I. N. Hagan, Uniontown, Pennsylvania, has been elected Treasurer of the International Association of Ice Cream Manufacturers.

In addition to serving on the Board of Directors of the International from 1940 to 1946, he was a member of a special committee appointed by President Hood of the IAICM to help devise a Pension and Retirement program for staff personnel.

Since 1936 he has served as a Director of the Association of Ice Cream Manufacturers of Pennsylvania, New Jersey, and Delaware. From 1944 through 1946, he was Vice President of that organization and has recently completed a two-year term as President.

He was educated at Pennsylvania State College.

Buy U. S. Bonds

HEEDS GREELEY'S ADVICE

Chicago, Ill.—Widely known through his industrial and U. S. Army engineering skill, Robert W. Mojonnier has recently been appointed to the Mojonnier

ROBERT W. MOJONNIER

Bros. Co., sales division in southern California and adjacent western states. Thoroughly familiar with dairy technical problems since 1931, when he entered the purchasing and sales departments of the company, "Bob" is equipped to give valuable engineering co-operation to rapid-growing dairy interests of these western areas.

Entering military service in 1942, he was located in the Boston District with the Ordnance Department until his discharge in 1946, meantime having earned a Legion of Merit medal.

His western "urge" began to take hold when he became engineer on construction of new plants for the Missouri Farmer's Association Dairy Products Co., of Springfield, Mo., an activity which followed his army experience. In this connection he completed assignments before resuming work at the Mojonnier plant in Chicago.

Now 37 years old, with a young wife and 2-months-old son, Mr. Mojonnier and his family will enthusiastically become a new unit in 'the Golden West'.

●

BORDEN PROMOTES

Two promotions were announced by the Chicago Milk Division of the Borden Company. W. Neal Waterstreet was named vice president in charge of production, and Joseph F. Malone was appointed assistant treasurer. Mr. Waterstreet also will continue as general manager of plant and production, and Mr. Malone as division controller.

URIAN WITH SHARPLES

George C. Urian has recently been appointed special representative of the Dairy Equipment Division of The Sharples Corporation. Mr. Urian will make his headquarters at the Sharples home office in Philadelphia and will specialize in dealer relations. He has been with The Sharples Corporation since 1942 and has spent a great deal of time in introducing the company's Cream Separators and Milk Clarifiers on the Pacific Coast, having previously made his headquarters at Long Beach, California.

GEORGE C. URIAN

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JOINS DIAMOND ALKALI

Cleveland, O.—Arthur W. Crossley, for the past three years assistant general manager of the Potomac Electric Power Company, Washington, D. C., has been elected treasurer of Diamand Alkali Company, it was announced recently by Raymond F. Evans, president, following action by the Board of Directors.

Crossley succeeds William H. Evans, who, in addition to his duties as general manager of Diamond's six silicate-producing plants at Cincinnati, Chicago, Dallas, Jersey City, Lockport, N. Y., and Emeryville, Cal., has been acting treasurer since March 2nd.

Crossley assumes his new duties today, bringing with him 20 years' financial analysis experience gained chiefly in the public utilities field. Prior to his association with the Power Company, he served for three years with the District of Columbia as assistant director and chief engineer in the office of the director of public works. He has also held various engineering assignments with the District of Columbia Public Utilities Commission, Washington Gas Light Company and Dennison Manufacturing Company.

During the war Crossley was a staff officer in the Industrial Division, Chemical Warfare Service, U. S. Army, which was in charge of engineering on a $350-million construction program and a $2-billion procurement and production program covering a wide range of chemical and mechanical items. He also served as a member of the War Department's Joint Logistics Plans Committee, Joint Chiefs of Staff, which implemented world-wide military planning.

●

ARTKRAFT GETS GRAY

Ronald D. Gray, Jacksonville Beach, Fla., well known in the refrigeration field through 23 years as a sales representative, is handling the sales of the Artkraft Mfg. Corp's refrigeration units in the Southeastern part of the United States.

RONALD GRAY

Gray, one of the originators of the idea of "packaging" refrigeration—selling the compressor, display case, et cetera, as a unit — has been selling the refrigerators for more than a year.

The Southeastern area includes North and South Carolina, Georgia, Alabama, Louisiana, Southern Virginia, Florida, Mississippi and Tennessee.

●

GODERICH CHANGES HANDS

Goderich, Ontario—Owen Hamilton, a former partner in the Weston Dairy at Weston, Ontario, has purchased the Goderich Dairy, Goderich, Ont. From J. A. Snider who operated it for the past 16 years. Mr. Hamilton served with the R. C. A. F. overseas during the war, in the "400 Squadron."

HEADS DAIRY GROUP

Newly-elected president of the Florida Dairy Industry Association is J. Wellington Paul, vice president of Foremost Dairies, Inc., with general offices in Jacksonville, Fla. Mr. Paul was chosen to succeed R. S. McAteer, of Tampa, Fla., at the association's annual convention in Jacksonville, July 7, 8 and 9. Nationally known dairy leaders participated in the three-day program.

J. W. PAUL

●

G. H. CLAPP DIES

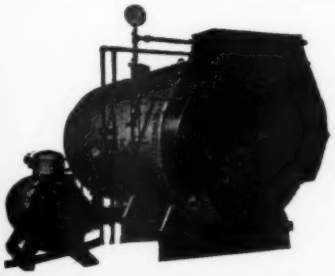
G. Howard Clapp, herd superintendent for the past 20 years at Pabst Farms, Inc., Oconomowoc, Wisconsin, died suddenly June 21, 1948. Mr. Clapp had recently been elected to the Board of Directors of The Holstein-Friesian Association of America to fill vacancy created by the resignation of John Wuethrich, Greenwood, Wisconsin.

Mr. Clapp was for many years chief herdsman at Hollyhock Farms, Oconomowoc, Wisconsin, owned by Gustave Pabst, brother of the present owner of Pabst Farms, Inc., Fred Pabst of Oconomowoc.

Always a great student of dairy cattle, especially in the fields of herd health and management, Mr. Clapp was constantly in demand as a speaker on these subjects before veterinary and breeder groups. He was an authority on the practical application of the techniques of artifiical insemination and put such techniques to work at Pabst Farms many years before such usage became widespread.

At the time of his death, Mr. Clapp was 52. He is survived by Mrs. Clapp. Death was caused by heart attack.

LEFFEL SCOTCH MARINE BOILER



Universally accepted and used as the Ideal Boiler for MILK PLANTS where Economical Service, High Efficiencies and Lowest Maintenance Costs are required.

Built in sizes 6 to 250 H.P., to comply with the A.S.M.E. Boiler Code and all State Boiler Laws.

Splendidly adapted for firing with COAL (hand fire, or with the specially designed LEFFEL STOKER) OIL, GAS and WOOD.

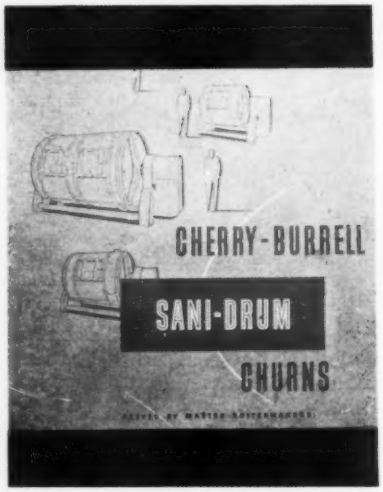
THE JAMES LEFFEL & CO., Established 1862 Springfield, Ohio

See Additional Leffel Stoker Ad on Page 85 Dept. MR

USING OUR SEPARATOR • ITEMS OF INTEREST SKIMMED FROM HERE AND THERE

Churn Bulletin

A NEW bulletin describing its complete line of single speed churns has recently been prepared and issued by the Cherry-Burrell Corp. This



prominent dairy equipment manufacturing concern presents in the illustrated bulletin a comprehensive picture of features of the various sizes of its SANI-DRUM churns, which were designed specifically to meet the demand for single speed units of top quality. Three styles are available, with half-full capacities, respectively, of 655, 355 and 235 U.S. gallons. Complete descriptions and detailed specifications of this churn are shown, together with pictures of a number of commercial installations.

Copies of the Bulletin, which is in color and designated No. G-440, may be obtained from Cherry-Burrell headquarters at 427 West Randolph Street, Chicago 6, Ill.

•

Gas Fired Heaters

NEW GAS FIRED UNIT HEATERS that feature cast iron construction in both the heat exchanger and the combustion chamber have been placed on the market by Automatic Gas Equipment Company, Pittsburgh, Pa. They are known as Pittsburgh Gas Unit Heaters, Series "C".

Cast iron is used for the heat exchanger and combustion chamber. Castings are in one piece, and the extended heating surface fins on the heat exchanger are cast integral.

Pittsburgh Gas Unit Heaters have been designed to consume the proper amount of air to support combustion without permitting an excess of air to lower heating efficiency according to the manufacturer. This is accomplished by means of a built in draft hood which absorbs excessive chimney action and thereby conserves heat. The heater does not depend upon forced draft from the fan for either the primary or secondary air supply. By the use of adjustable horizontal louvers, warm air can be directed to any desired level.

A safety pilot is used on these heaters to automatically turn off the gas if the pilot light goes out or if it burns too low to insure perfect ignition. The draft diverter affords protection against down drafts through the chimney.

•

Oakite Booklet

BENEFITS TO BE gained with the use of specialized cleaning, disinfecting and deodorizing materials in connection with industrial housekeeping and plant sanitation programs, are described in an illustrated, 12-page booklet just released by Oakite Products, Inc., New York.

Booklet reports on two, specific materials that are said to perform the cleaning, disinfecting and deodorizing functions easily, efficiently and economically. Each of these materials possesses the ability to perform *diverse* activities within a single application. The first, double-action Oakite Di-Sanite, combines thorough, all-purpose cleaning action with effective deodorizing ability. The second, Oakite Tri-Sanite, a threefold sanitizing agent, contains germicidal and fungistatic properties in addition to its odor-killing and light detergent characteristics, it is reported.

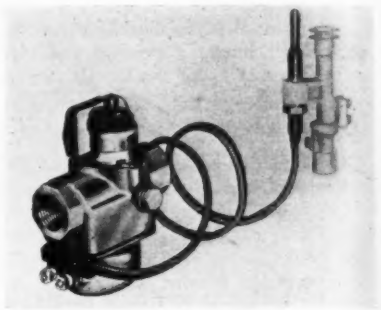
Solutions made up with these materials, the booklet states, may be applied directly to surfaces by spraying, swabbing, brushing, soaking or steam gun. Only small concentrations of each material, it is said, are sufficient to supply "at-the-source" deodorization and efficient detergent action. Booklet lists many diversified applications of these materials in various types of industrial plants, gives working directions, recommended concentrations, etc.

Readers wishing free copies of this new booklet may obtain them by addressing Oakite Products, Inc., 136B Thames St., New York 6, N. Y.

Gas Cock Safety

THE NEW GENERAL CONTROLS MR-2-5 is an all-in-one, simplified, on-off and safety shut-off control unit designed particularly for floor, central, small space and water heaters.

Flow of all gas automatically stops when the pilot is extinguished. During



the reset operation, gas flows to the pilot burner only. No gas can pass to main burner until the pilot is ignited and the safety valve set in the operating position.

The operator can then simply set the single handle control for any desired gas flow to the main burner. The handle is designed to permit setting of the safety valve without moving the gas cock from the closed position. It is impossible for the pilot gas to remain on should the operator leave the handle in the OFF or RESET position without pilot ignition being established.

The safety valve operating mechanism is protected by a seal against airborne or gas-borne foreign matter or scum-forming vapors. It is also double-sealed against gas leakage to the atmosphere.

•

Turbine Type Pump

THE ROY E. ROTH COMPANY, Rock Island, Ill., has announced the development of a new, turbine type pump for liquid transfer. Known as the Model 0023, this pump is suitable for industrial applications and furnishes pressures up to 80 lbs., speeds up to 2200 RPM, capacities up to 8 GPM.

The Model 0023 pump is all bronze with a stainless steel shaft and double ball bearings. The single multivaned impeller, which is the only moving part of this pump, develops high pressures in single stage construction, and will handle condensate without vapor binding. Ac-

cording to the manufacturer, this pump is available with or without motor, base, and coupling.

Further information may be obtained upon request to the Roth Company, care of this publication.

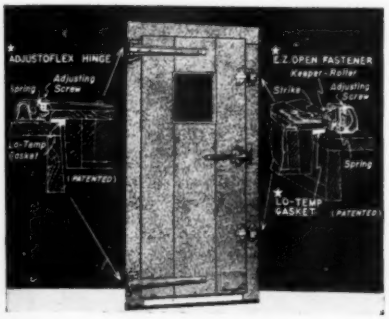
●

New Cold Storage Door

A NEW TYPE COLD STORAGE door for sub-freezing and sharp freezing operations, provided with positive means to produce a uniformly tight seal is announced by Jamison Cold Storage Door Company, Hagerstown, Maryland.

The uniformly tight seal is obtained through three patented features:

The door hinges, combining self-adjustment with screw regulated spring



pressure, automatically seats door gasket. To compensate for gasket wear the spring pressure can be altered by simply turning an adjusting screw.

The two-point fastener maintains a uniform sealing pressure and requires minimum effort to close and open door. Operation of the fastener is automatic and is adjustable through the medium of an exterior adjusting screw.

The gasket, developed especially for use on this door, is made of sponge rubber encased in a water impervious skin. It is applied to the full overlap of the door sealing the door against the frame-casing and plug-seals the space between the door and frame.

Front and back operating handles are provided. The design of the fastener is such that no connection between the front and back handles is required.

The front, edges and frame-casing of the door are metal clad. Possible deterioration because of moisture precipitation is eliminated and sanitary conditions maintained.

●

Bactericide in Bottles

B-K CHLORINE-BEARING POWder, a well-known dairy bactericide, is now on the market packaged in a new amber Duraglass bottle, according to the Pennsylvania Salt Mfg. Co., Philadelphia, manufacturers of the product.

This chlorine-bearing powder has long been a standby on the farm, where a high degree of sanitation must be maintained, for use as a bactericide, disinfectant, and deodorant. It helps the dairy farmer keep his dairy utensils sanitary and produce milk of high quality.

According to the manufacturers, this dairy bactericide is used direct, in cold or warm water, for the preparation of a sanitizing rinse or spray. This rinse or spray is used on pails, cans, strainers, bottle fillers, piping, coolers, ice cream freezers, vats, and tanks in farm dairies, ice cream factries, cheese factories, food factories, milk plants, creameries, canneries, and condenseries to kill bacteria.

A concentrated solution, called stock solution is used to disinfect farm and home water supplies for livestock and poultry; to disinfect barns and premises, and to treat cuts, sores, and surface wounds on livestock.

In food and beverage plants, B-K Powder is used for treating equipment and utensils to kill bacteria, molds and yeasts. It helps to prevent bacterial contamination of the beverage by the equipment and aids in preventing spoilage.

This bactericide is used in soda fountains, soft drink stands, restaurants, schools, hospitals and other institutions to sanitize and deodorize dishes, glassware, silverware, refrigerators work tables, and floors.

●

Redesigns Syrup Labels

BRADWAY CHOCOLATE COMPANY, New Castle, Indiana, has completed the restyling of labels for Bradway Chocolate Flavored Syrup. The

familiar Scotch Plaid design is retained but the new handling improves visability and strengthens brand identity. The The labels are done in two colors, lithographed on tin for the 5-gallon pail and No. 10 container; wrap-around for the 12-ounce jar sold through retail outlets. The No. 10 tin is shown in the accompanying photograph.

●

Wet Floor Surfacing

NON-SLIP "SAFETY-WALK" surfacing for wet floors, steps and ramps unavoidable in the dairy industry has been announced by the Minnesota Mining and Manufacturing Co., St. Paul, Minn.

The surfacing material, which consists of hard mineral grains surface-

Kurly Kate
METAL SPONGES
Designed especially for cleaning all types of dairy equipment and utensils. Will not rust or splinter, cut the hands or injure metal or plated surfaces. Kurly Kate Metal Sponges are fast working, easy to use, and easy to keep clean. Made in STAINLESS STEEL, NICKEL, SILVER and BRONZE.
KURLY KATE CORPORATION
2215 S. MICHIGAN AVE. CHICAGO 16, ILL.
ORDER FROM YOUR JOBBER OR WRITE DIRECT
Kurly Kate
stainless metal sponge
FOR EASIER INDUSTRIAL CLEANING
SOFT ON HANDS
SANITARY

coated on toughened fabric, affords non-slip safety underfoot "no matter how wet or greasy," the producer announced.

Made in red, green, silver and natural black, mat is provided in roll form and in factory-cut stairway strips, brick-size cleats, tile-size cleats, and larger all-purpose cleats. It is applied by adhesive.

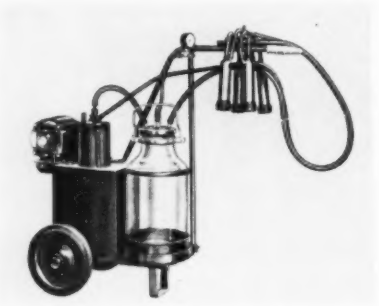
Complete information is available on request to Minnesota Mining and Manufacturing Co., care of this publication.

●

Visual Milker

SANITATION IS OF FIRST IMPORTANCE in dairy farming and tuned to this picture of cleanliness is the automatic vacuum milking machine that milks into clean glass pails.

Manufactured by the Ideal Manufacturing Company, Des Moines, Iowa, the



new milker comes in a single or twin unit equipped with gasoline or electric motor. For herds of less than eight cows, the single unit milker is recommended and the twin unit for larger herds.

Visual milking into these sanitary four-gallon Duraglas pails made by Owens-Illinois Glass Company eliminated the need for timers, according to the manufacturer, since the operator can see when the milk flow starts and stops.

Each milker is equipped with an extra glass pail.

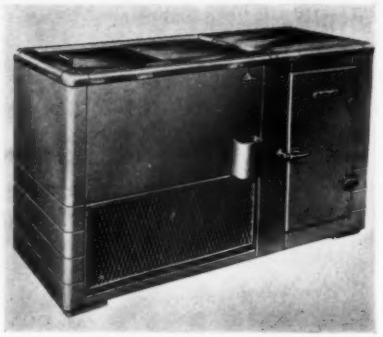
●

New Refrigerator

A REFRIGERATOR DESIGNED for the dairy trade is announced by Artkraft Manufacturing Corporation, Lima, Ohio.

The new development is a two compartment, cold-wall unit of more than 15 cubic feet capacity of the convenient plug-in type. It is suitable for the vending of milk, either in bottles or in bulk, and for the small dairy supplier who must cool his milk before marketing.

The unit is 65 inches long, 38 inches high and 30 inches wide. Deep-well compartment is 30½ inches deep, of 8 cubic feet capacity, holds four 5-gallon milk cans. For rapid wet cooling a removable rack which rests on top of the



cans provides more than two cubic feet for refrigerating milk in bottles or small containers.

The second compartment is 37½ inches by 20¾ by 17 inches deep, providing 7½ cubic feet for additional refrigeration and may be operated wet or dry. Both compartments are top opening to prevent spill-out of cold, with sliding stainless steel lids.

The entire unit is all-welded construction, heavily insulated with fibre glass. Cabinet is bonderized and finished enamel in white or silver blue. Unit is powered by a quarter horsepower, air-cooled, hermetically sealed and permanently oiled compressor using Freon 12. It has rapid pull-down for fast-dry refrigeration and operates on 110-volt current at low cost.

●

Bacteria Control

HANOVIA CHEMICAL & MFG. Co. announce their latest development in germicidal equipment, 2902 and 2903 Letheray. The chief purpose of these ultraviolet units is to protect merchandise from spoilage caused by air-borne bacteria and mold spores, etc. This includes drugs, foods, beverages, meats and other products which are susceptible to contamination.

The new units, are designed for mounting flush on ceilings or over processing tables and conveyors. They are effective in direct irradiation of products or the surrounding air to destroy organisms and prevent them from reaching surfaces of merchandise.

The units are equipped with adjustable louvres which can be "set" to direct or baffle the germicidal rays as desired.

●

Marley Acquatower

IN RESPONSE TO A DEMAND for a "packaged product" up to 50 tons of refrigeration The Marley Company Incorporated is offering a complete line of redesigned Acquatowers.

The Acquatowers are all steel welded casing nail-less redwood filling. Aluminum fans are protected with guards for safe operation. Basins are made entirely of steel.

The units are shipped already assembled and can be placed in operation as soon as electrical and piping connections are made. The Acquatowers, according to the manufacturer are engineered for either outdoor or indoor service and come two general styles in seven sizes ranging from 3 to 50 tons of refrigeration.

●

Hot Chocolate Mix

KALVA SUPER-12, A NEW free-flowing, hot mix dairy chocolate syrup for chocolate milk drinks that mixes 12.8 to 1 has been developed by the Kalva Corporation of Waukegan, Illinois. According to K. W. Karnopp, President of the Kalva Corporation, the

new syrup employs an entirely new formula.

While it incorporates the finest qualities of the 10 or 11-to-1 mixes—non-settling, non-separating, free flowing, richer flavor and color—Kalva Super-12 enables the milk plant operator to get from 10 to 15% more finished drink from every can of syrup.

Kalva Super-12 is packaged in 65 lb. pails, 200 lb. drums, or in customer's milk cans.

Information about the new Kalva Super-12 may be had by writing to the Kalva Corporation, care of this publication.

●

SLOW MILKING INVESTIGATED

Ithaca, N. Y., June—Poorly trained cows were found to be the chief cause of slow milking in a survey of typical New York dairy farms by agricultural economists at Cornell. Another reason is failure of the operator to remove the machine when milking is complete.

Records were taken on 22 farms with

XUM

herds ranging in size from 11 to 38 cows. Machines were used to milk 87 per cent of the cows.

Light was shed on how much time it takes various farmers to do the milking. The range was 3.85 to 8.50 minutes per cow, and the average a little more than 6 minutes.

The average time to milk a cow by hand was about 6.50 minutes. Part of the cows were milked by hand on all but five farms, according to R. G. Murphy of the Cornell staff.

The specialists were particularly interested in why machines were left on cows more than 7 minutes. Prolonged machine stripping was found to be one of the main reasons. In some instances the milking was complete but the operator had not removed the machine. Stripping the cow by hand was the most common job interfering with the removal of the machine.

Shorter milking time for many cows could be attained, the economists concluded, by reducing the machine-stripping time and eliminating or reducing the amount of hand-stripping.

●

GOVERNMENT INVESTIGATES

(Continued from Page 8)

of 19c per quart of milk for retail delivery and 16½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(b) On or about October 4, 1946, the defendants agreed to and fixed a price of 21c per quart of milk for retail delivery and 18½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(c) On or about January 21, 1947, the defendants agreed to and fixed a price of 20c per quart of milk for retail delivery and 17½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(d) On or about February 1, 1947, the defendants agreed to and fixed a price of 19c per quart of milk for retail delivery and 16½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(e) On or about June 1, 1947, the defendants agreed to and fixed a price of 18c per quart of milk for retail delivery and 15½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(f) On or about July 10,1947, the defendants agreed to and fixed a price of 19c per quart of milk for retail delivery and 16½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(g) On or about August 18, 1947, the defendants agreed to and fixed a price of 20c per quart of milk for retail delivery and 17½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(h) On or about September 10, 1947, the defendants agreed to and fixed a price of 21c per quart of milk for retail delivery and 18½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area;

"(i) On or about December 11, 1947, the defendants agreed to and fixed a price of 22c per quart of milk for retail delivery and 19½c per quart of milk for wholesale delivery by defendant handlers in the Louisville area."

Difficult to Understand

The charges in the indictment will doubtless cause many handlers to pick up a pair of scissors and join the nearest paper doll club. Indeed one of the achievements of which milk handlers have been more than a little proud has been the elimination of ruinous cut throat price wars from the market. One of the arguments in favor of the so-called Connecticut Plan for bringing about level production was the fact that numerous retail price changes would be avoided. Furthermore, the presence of federally regulated prices to producers in twenty-nine major markets limits the extent to which price variations are possible and makes it exceedingly difficult for handlers to do anything but act together in the matter of retail prices. If prices in one section of the market are established by "concerted action" even if the action comes from a Federal Market Administrator it is hard to avoid concerted action in the rest of the market.

Some milk dealers have professed to see "political implications" in the present barrage of investigations. As far as *American Milk Review* reporters could determine there is no foundation for this position. Aggravating and trying as the investigations maybe, they are the result of the general inflationary trend of the national economy rather than a singling out of an important food industry for an economic whipping boy.

The Law Is Fifty-eight Years Old

The most significant feature of the entire galaxy of probes is not that milk handlers are charged with price fixing agreements, which are practically inevitable under present marketing conditions, but that the legal basis for the government's action is a law which was enacted more than fifty years ago. The dairy industry, as we know it today, was not even in existence at that time.

The Department of Justice is not concerned with the social desireability of its actions, its concern is with enforcing laws as they exist on the statute books. It is the province of Congress to determine whether laws are good or bad. Until that body gives the anti-trust laws a badly needed overhauling, milk handlers had best beware of the Brown Hotel and the Pedennis Club. As long as the general price level is high, as long as milk is a vital part of national diet, so long will fluctuations in milk prices be accompanied by complaints to the Department of Justice. And so long as complaints pile up in Mr. Clark's office, so long will the heavy guns of that law enforcement agency pump a drum fire of investigations into the Nation's largest industry.

FOR A DEPENDABLE SOURCE OF HIGH QUALITY DAIRY PRODUCTS, CALL US.

MILK	BUTTER
FRESH CREAM	BUTTERMILK
FROZEN CREAM	DRIED SKIM MILK SOLIDS
SOUR CREAM	SWEETENED SKIM CONDENSED MILK
COTTAGE CHEESE	ICE CREAM MIX
FARMERS CHEESE	BAKERS CHEESE
POT CHEESE	PLAIN SKIM CONDENSED MILK

GRANDVIEW DAIRY, Inc.

6071 METROPOLITAN AVENUE, RIDGEWOOD, N. Y.

PLANTS AT:

Arkport, New York — Bear Lake, Pennsylvania — Cohocton, New York — Neenah, Wisconsin

WANTS and FOR SALES

RATES: "Position Wanted," 50c. Limit of 50 words; 2c for each additional word. All other advertisements, 5c a word ($1.00 minimum). Keyed ads, 25c extra to cover return postage. The name and address should be included in counting the words. All payments strictly in advance. Those who answer any of the following keyed advertisements please address replies to the box number, care of American Milk Review, 175 Chambers St., New York 7, N. Y.

FOR SALE — EQUIPMENT

FOR SALE—One 164 can milk tank on Brockway truck—in excellent condition. Fair Lawn Dairy Farms, 5-01 River Road, Fair Lawn, N. J. 6-M-3

FOR SALE—Fluid milk plant in New York State. Up to-date equipment. Taking in 200 cans daily. Can be built up. Box 306, care this publication. 7-M-2

FOR SALE—One 100 gal. (tin-copper) pasteurizer without agitator or motor—$50.00; one Sturdy-Bilt four row bottle washer—$450.00; one Limex Water Softener Rectifier complete with fittings—$150.00; one Pomona Deep Well Pump 7½ H.P. motor, complete with rods and 110 foot spinner—2½ inch casing, will throw 80 gals. per minute—$500.00; 300 quart cases for round bottles @ 35c each; 300 pint cases for round bottles @ 35c each; one cheese vat—$50.00. All equipment listed is in good condition. Write Studey's Sanitary Dairy, 2425 Durand Avenue, Racine, Wisconsin. 7-M-3

FOR SALE—Four-400 gal. Pfaudler Horizontal Stainless Steel Insulated Tanks and motor driven agitators; painted steel exteriors; 2—same as the foregoing with stainless steel exteriors. Lester Kehoe Machinery Corp., 1 East 42nd St., N. Y. 17, N. Y. 8-M

FOR SALE—Milk Cooler 6 feet, tin copper with stainless cover—$300.00; No. 40 DeLaval Separator, Factory Rebuilt—$300.00; Milk Vending Machines, Ideals & Vendalls—$125.00 to $175.00; Stamsvik Junior Milk Filler—6000 lbs.—$50.00; Dump Tank—32x38x38—$25.00. All F.O.B. Neshanic, New Jersey—Pilfour Dairy. 7-M-2

FOR SALE—One York model 536 Heater Exchanger, shop No. 8462576, consisting of one 30 inch H.L. frame (white), two large size 2 inch connector plates, and 84 type H.L. plates. Brand new. Immediate delivery. Price $6,800.00 f.o.b. Paynesville, Minnesota. North American Creameries, Inc., 2035 Rand Tower, Minneapolis, Minnesota. 7-M-2

FOR SALE — EQUIPMENT

FOR SALE—One 500 Gal. Manton-Gaulin Model CG, 20 HP Motor—$800.00; One 200 Gal. Manton-Gaulin Model CG, 10 HP Motor—$850.00; One 300 Gal. Manton-Gaulin Model CGC, 15 HP Motor—$1,000.00; One 200 Gal. Manton-Gaulin Model CGC, 10 HP Motor—$850.00; One 400 Gal. Manton-Gaulin Model CGA, 20 HP Motor—$1,200.00; One 600 Gal. Cherry-Burrell Viscolizer 1948 Model—$3,000.00; One 1,000 Gal. Manton-Gaulin CGC Model, 40 HP Motor—$1,600.00; One 400 Gallon Manton-Gaulin Model CGD, 1948 M, 20 HP Motor—$2,200.00; Two 500 Gal. Cheese Vats, Steel Outer Jackets, welded stainless steel liners, about one year old—$475.00 each. Davis Supply Company, 2134 S. Saginaw St., Flint 3, Michigan. 7-M

FOR SALE—One 5,000 gallon capacity Sani-35 Milk Storage Tank, 12 gauge stainless steel lining, No. 4 finish, dished heads, 2 inch cork insulation, steel outer jacket, manhole, peep glass, light fixture, vent fitting, no foam inlet, 2 inch flush valve outlet, agitator, 220 volt, 3 phase, 60 cycle motor, sanitary ball feet, angle thermometer. Outside diameter 101 inches outside over-all length 20 inches. Brand new. Immediate delivery. Price $4,500.00 f.o.b. Paynesville, Minnesota. North American Creameries, Inc. 2035 Rand Tower, Minneapolis 2, Minnesota. 7-M-2

FOR SALE—Seven 215 can Pfaudler Horizontal Jacketed Insulated Glass Lined Tanks equipped with two speed heavy duty agitators and motor drives. Lester Kehoe Machinery Corp., 1 East 42nd St., N. Y. 17, N. Y. 8-M

FOR SALE—A 2,000 lb. C.P. Ice Builder, brand new, never used. Complete with all automatic controls. Also a (2) two horse McCray Freon Compressor, either with or without blower system. Complete with all connections and piping. A wonderful cooler set-up. This system was operated only one week. Reason for selling this equipment—too small. Write or contact Geo. J. Bomber, Bomber's Cry. Co., 1077 Sheridan Rd., Menominee, Mich. 6-BM

FOR SALE — EQUIPMENT

REBUILT — Pasteurizers, Milk Coolers, Bottle Fillers, Ice Machines, Plate Coolers and Heaters, Homogenizers and Bottle Washers. Send us your requirements. Ohio Creamery Supply Company, 701 Woodland Ave., Cleveland 15, Ohio. 8-M-t.f.

FOR SALE—5 H.P. steam boiler; Milwaukee Type "BB" filler and capper and five case dollys, all in excellent condition. Mt. Logan Farms, Box 77, Chillicothe, Ohio. 8-M

FOR SALE—Receiving Room Equipment—1000 lb. Fairbanks Overhead Dial Scale; Lathrop-Paulson S.S. Weigh Can; Stainless Steel Receiving Vat. Lester Kehoe Machinery Corp., 1 East 42nd St., N. Y. 17, N. Y. 8-M

PLANTS FOR SALE

FOR SALE—Milk and Ice Cream Plant in Northern Ohio. Equipment in A-1 shape. Volume of milk 1500 units. Buildings, including modern house, stock and supplies, $55,000—$40,000 down. Box 320, care this publication. 8-M-2

FOR SALE—Dairy plant in Northeastern Wisconsin—1200 to 1400 qts. daily. Surplus milk made into cheddar cheese. Daily intake, 10,000 lbs. Good opportunity for advancement. Box 319, care this publication. 8-M-2

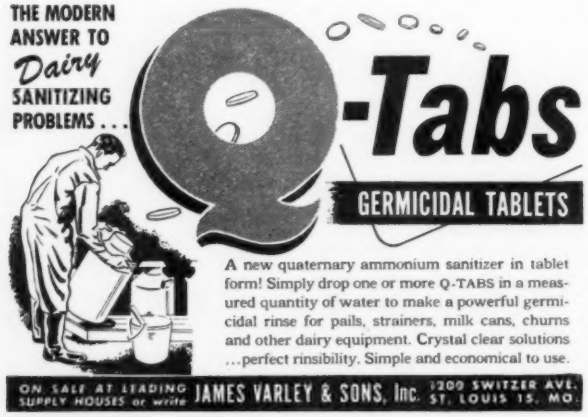
FOR SALE—Dairy plant in Wisconsin. This plant is located in Eagle River, Wis., in the heart of the tourist area on the only available business corner in the center of Eagle River where three highways meet. Doing between eighty and one hundred thousand a year in retail and wholesale dairy products, has small dairy bar in connection with tremendous possibilities. Reason for selling, recently injured back and will have to retire from active work. This business can be purchased for the worth of the property alone. Eugene W. Pehong, Rhinelander, Wisconsin.

BUSINESS OPPORTUNITY

FOR SALE—Several good milk plants and cheese factories. Write for full information and state location desired. Box 318, care this publication. 8-M

SALES AGENCY

Newly formed Sales Agency contaction confectionery, bakery, and beverage manufacturers. Will consider exclusive representation in Chicago area. Our personnel have years of technical and practical experience in the food industries. Box 323, care this publication. 8-M


THE MODERN ANSWER TO Dairy SANITIZING PROBLEMS . . .
Q-Tabs
GERMICIDAL TABLETS
A new quaternary ammonium sanitizer in tablet form! Simply drop one or more Q-TABS in a measured quantity of water to make a powerful germicidal rinse for pails, strainers, milk cans, churns and other dairy equipment. Crystal clear solutions ...perfect rinsibility. Simple and economical to use.
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FOR SALE — MISCELLANEOUS

FOR SALE—Chocolate Milk made with Bradway Non-Settling Chocolate Syrup and Powder is superior. Place your trial order now. BRADWAY CHOCOLATE COMPANY, New Castle, Ind. 7-M-t.f.

FOR SALE—Used milk bottle crates. Can deface old name and rebrand. Write or phone for present day inventory. Ohio Creamery Supply Co., 701 Woodland Ave., Cleveland, Ohio. 7-M-t.f.

FOR SALE — Brand new Model UM Divco Step-N-Drive truck; '47 Chevrolet Panel Sedan—8,472 actual miles. Springdale Dairy, St. Croix Falls, Wis. 8-M

FOR SALE — INSULATED MILK TRUCK BODIES for farm pick-up. Write for prices and deliveries. Millington Truck Body Co., Inc., Millington, Mich., Huntington, Ind.; Sparta, Wisc. 8-M-t.f.

HELP WANTED

HELP WANTED—Receiving Plant Manager—Central Pennsylvania—New York City approved, modern plant—Knowledge of machinery maintenance and farm inspection essential—Good opportunity—Living quarters available near plant. Box 302, care this publication. 6-BM

WANTED—Experienced plant manager to take charge of small New Jersey pasteurizing and bottling plant now handling 5,000 quarts daily. Must be capable and good worker. Excellent opportunity for right man. Give full details of past experience, etc. in first letter. Box 322, care this publication. 8-M

WANTED—General manager for private, aggressive, growing dairy. Must be experienced in plant, office, and driver-salesman fields. Write Greenhill Dairies, Inc., 2nd and Greenhill Ave., Wilmington, Delaware. 8-M

POSITION WANTED

MILK ACCOUNTANT-COMPTROLLER—35 years old; 12 years' accounting experience in dairy industry; complete knowledge of butterfat accounting and plant operating costs; very familiar with milk marketing problems and government regulations; high references; seeks worthwhile connection; starting salary $7,500. Box 321, care this publication. 8-M

Vive la Lait!

French Youth Makes Milk His Pet Like While Living in This Country — Says in France Milk Is Scarce

MARIETTA, OHIO—Jean Deplaix, 19-year-old French youth, has left Marietta College to return to his native Paris after enjoying a school year full of what he called, "amazing American abundance."

The Paris youth joined the college faculty last fall on a part-time basis as a French conversation coach. He never got over being surprised at the plentiful supply of food, automobiles, and mechanical gadgets in America.

JEAN DEPLAIX

His pet like is milk, which he drank at every opportunity. His favorite pastime was sipping a milk-shake through an oversized straw in the student-operated Pioneer Club.

He told his friends: "In France milk is only for the babies. We haven't enough for anyone else, you see."

AN INVENTOR NAMED THATCHER

(Continued from Page 30)

number of customers jumped almost overnight to double and that the dairies found it necessary to put extra wagons on their routes to take care of the increased demand.

One custom ended by Dr. Thatcher's invention was that of dipping into the large can and adding a small amount of milk to the pint or quart ordered—a kind of "milkman's dozen." If the milkman forgot the extra bit, early drivers say, the housewife was more than likely to remind him of the courtesy.

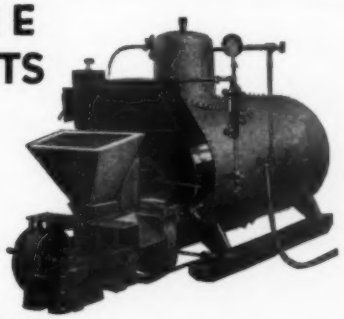
The death of this time-honored custom was, however, not long mourned when customers realized the advantage of getting clean milk from sealed bottles. Now the dairies could start their campaign to produce germ-free milk. Now they could be reasonably sure that milk pure and safe at the dairy would still be germ-free when it reached the customer.

A milestone in public health and the dairy industry's history, Dr. Thatcher's invention of the sealed milk bottle has been credited by many with causing a startling drop in diseases of small children and in halting the high infantile mortality rate then prevalent. Infant deaths due to intestinal and alimentary ailments as well as typhoid, scarlet fever, and other diseases traceable to impure milk showed a sharp decline following the introduction of the sealed bottle.

The invention is credited by many with being the foundation of the modern milk industry, which in New York State alone sells 36 million glassfuls of milk a day.

Ogdensburg considers especially appropriate the fact that Dr. Thatcher's milk bottle and the city's founding will be commemorated simultaneously. The city on the banks of the St. Lawrence River (population a little over 16,000) is in the heart of the rich Northern New York dairy country and an important center for the milk industry.

LEFFEL SCOTCH MARINE BOILER AND STOKER UNITS



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We build stokers for other makes of Scotch type boilers.

Leffel boilers are ideally suited for oil or gas firing.

Available in sizes 6 to 250 H.P. inclusive normal (not inflated) rating, — and built with many plus qualities exceeding A.S.M.E. and State Boiler Codes.

Write, wire or phone us for full particulars.

THE JAMES LEFFEL & CO. Established 1862 **Springfield, Ohio**

See Leffel Boiler Ad on Page 79 Dept. MR

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OF EVENTS TO COME

International Dairy Congress—Twelfth international meeting will be held in Stockholm, Sweden from August 15 to 19, 1949. Enquiries concerning the congress should be addressed to XIIth International Dairy Congress, Post Box 642, Stockholm, Sweden.

West Virginia Dairy Products Association—Thirty-fourth annual convention, Greenbriar Hotel in White Sulphur Springs, W. Va., August 16 and 17. Secretary, John J. Slavins, 467 Chestnut St., Morgantown, W. Va.

Upper Peninsula Dairy Manufacturers' Association—Annual fall frolic will be held at Blaney Park, Escanaba, Mich., September 10 to 12. Secretary, O'Neill C. D'Amour, Scott Dairy, Gladstone, Mich.

Minneapolis National Food Show—Minneapolis Auditorium. Sponsored by the Minneapolis Retail Grocers' Association, September 11 through 19. Director, Norman F. Ludford, 510 Syndicate Building, Minneapolis, Minn.

North Dakota Dairy Industries Association—Second Annual State Dairy Show. Jamestown, N. D., September 15-18, 1948. John Burnham, Box 1976, Fargo, N. D., Executive Secretary.

Indiana Dairy Products Association—Annual convention will be held at the Claypool Hotel, Indianapolis, Ind., September 20-22, 1948. Executive secretary, C. C. Hadley, 622-24 Board of Trade Bldg., Indianapolis 4, Ind.

Dairy Products Institute—University of Minnesota, Department of Dairy Husbandry, St. Paul, September 20-23, Prof. W. B. Coombs, Department of Dairy Husbandry, St. Paul Campus, St. Paul, Minn.

New York State Association of Milk Sanitarians—Annual convention, Hotel Statler, Buffalo, N. Y., September 22-24, 1948. C. S. Leete, New York State Department of Health, Albany, N. Y., Secretary.

Wisconsin Creameries Association—Annual Convention, Hotel Whiting, Stevens, Wis., Sept. 29, 1948. A. H. Lindow, 1 West Main St., Madison, Wis., Secretary.

Wisconsin Cheesemakers Association—57th annual convention will be held at the Retlaw Hotel, Fond Du Lac, Wisconsin, Oct. 19-20. George L. Mooney, Executive Secretary.

Dairy Industries Exposition—Atlantic City, New Jersey, October 25-30, 1948. Roberts Everett, Executive Secretary, 616 Albee Bldg., Washington 9, D. C.

International Association of Ice Cream Manufacturers—Annual convention, Atlantic City, N. J., October 25-27, 1948. R. C. Hibben, 1105 Barr Bldg., Washington 6, D. C., Secretary.

Milk Industry Foundation—Annual convention, Atlantic City, N. J., October 28-30, 1948. E. B. Kellog, 1001 - 15th St., N. W., Washington, D. C., Secretary.

Vermont Dairy Plant Operators and Milk Distributors—Twenty-seventh annual conference. Department of Dairy Husbandry, University of Vermont, Burlington, November 3 and 4.

Iowa Milk Dealers Association—Annual convention will be held at the Hotel Fort Des Moines, Des Moines, Iowa, November 12 and 13, 1948. Secretary, John H. Brockway, 903 Walnut Bldg., Des Moines 9, Iowa.

American Public Health Association—Nov. 8-12, Boston, Mass. Dr. Reginald M. Atwater, 1790 Broadway, New York 19, N. Y.

Illinois Dairy Students Reunion—Students and graduates of University of Illinois will hold dairy manufacturers reunion at Urbana, Ill., November 13. Secure additional information from Justa G. Kuebler, 706 Maple, Downers Grove, Ill.

Illinois Dairy Products Association—Annual convention will be held at the Morrison Hotel in Chicago, Ill., December 13 to 15, 1948. Secretary M. G. Van Buskirk, 309 W. Jackson Blvd., Chicago 6, Ill.

National Dairy Council—Annual winter-meeting conference will be held at the Hotel Robert E. Lee in Winston-Salem, N. C., January 27 and 28, 1949. President, Milton Hult, 111 N. Canal St., Chicago 6, Ill.

Pennsylvania Association of Milk Dealers—Seventeenth annual convention will be held at the Benjamin Franklin Hotel in Philadelphia, Pa., February 22 and 23, 1949. Executive vice-president, Benj. G. Eynon, 324 Telegraph Bldg., Harrisburg, Pa.

Dairy Industry Week, Kansas State College, Manhattan, Kansas, February 22, 23, 24, 1949. Prof. T. J. Claydon, Department of Dairy Industry.

●

JOIN F AND C INSTITUTE

Two packaging engineers, Mr. Fred W. Stenze, Jr., and Mr. Sam J. Renz, have been added to the staff of the Quartermaster Food and Container Institute for the Armed Forces, Chicago. Announcement of the expansion of developmental personnel of the Container Laboratories was made by Mr. Albert V. Grundy, Chief of the Container Development Division of the Institute. Mr. Stenze and Mr. Renz have been assigned to the Packing and Crating Branch.

The Packing and Crating Branch is responsible for the design and development of packaging, packing, and crating of Quartermaster general supplies, clothing, and equipage.

Mr. Stenze was for 8 years with the Rathburne, Hair, and Ridgeway Company, Chicago, as a sample box designer. He was also employed by the Ordnance Department, U. S. Army, as a designer of packaging and crating for Ordnance material.

Mr. Renz was employed for 8 years by Montgomery Ward and Company, Chicago, as an inspector and packaging engineer. Later, he was with the Douglas Aircraft Corporation, Des Plaines, Illinois. Mr. Renz is from Lake Forest, Illinois.

Better DRY MILK

AT LOWER COST

DRY MILK MACHINES

Built in Five Sizes

The patented, glass-smooth, "20-year cylinders" give years and years of maximum production of a superior dry milk at the lowest possible cost.

Many other exclusive features insure long life with low steam and power costs.

Complete details upon request.

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NEW — INTERESTING — USEFUL

MAGIC CREAM SIPHONS, for home use, remove cream from bottled milk, for use with coffee, cereals and desserts.

PLEASE OLD CUSTOMERS— WIN NEW FRIENDS

Leading dairy firms find Magic Cream Siphons a welcome sales booster aid. Housewives appreciate them and homes using a cream remover will consume more milk, when convinced by experience that many dishes are improved by the liberal use of milk instead of water in cooking. Free sample, for round or square bottles. Two models are made.

$15.00 per gross-$100.00 per 1000

Complete Satisfaction Guaranteed

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The New Fast-Selling
High-Profit Delicious Hot Mix
Chocolate Flavored Syrup

WINS TASTE TESTS 3 TO 1

10 to 15% More Profit

When You Use Kalva Super-12
The New Chocolate Flavored Syrup

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SPECIAL TRIAL OFFER— Two 65 lb. pails (12 gals.) of delicious KALVA SUPER-12 . . . enough to make 164 gallons of the fastest selling chocolate drink for only $18.

SEND FOR YOUR TRIAL ORDER TODAY!

MORE SALES: Carefully controlled blindfold taste tests in schools and factories give KALVA SUPER-12 a preference of almost 3 to 1. In addition, Kalva's new Dealer Promotion Plan offers complete advertising help for you.

LARGER PROFIT: KALVA SUPER-12 goes farther, costs less . . . means more profit for you.

GREATER ECONOMY: Nothing to add, less trouble to mix. The finest value in chocolate dairy syrup ever offered.

HIGHEST QUALITY: Free flowing KALVA SUPER-12 is non-settling, non-separating and is actually richer in flavor and color than a ten or eleven-to-one mix. Super-12 is processed at 165°.

Available in 65 lb. Pails, 200 lb. Drums or Customer's Milk Cans

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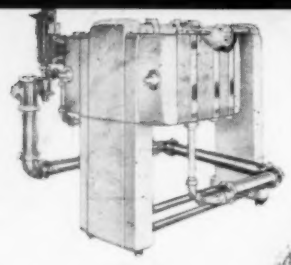
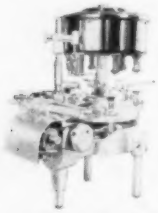
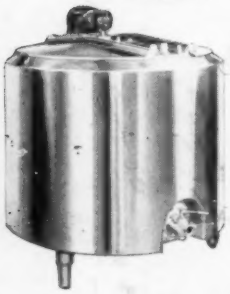


CP HTST Plate Unit

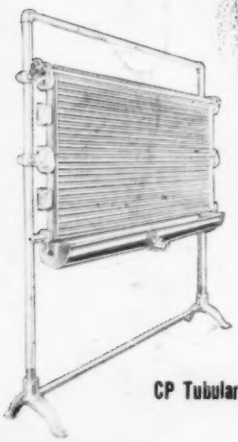


CP Bottle Filler

CP Homogenizer



CP Multi-Process Tank



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You're Smart and Lucky if...

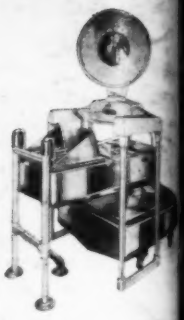
your plant is laid out and equipped to keep ahead of your toughest competitor . . . *Overhead Costs!*

Many plants . . . particularly those started when the choice of equipment was very limited . . . are paying a high premium for unnecessary labor, maintenance and repairs. The only way to eliminate these losses is through better layout, more efficient equipment, or both. If, for example, machines are being operated *continuously* for two shifts, dividing the load between two machines reduces metal fatigue . . . prolongs the life of both pieces of equipment. Furthermore, the stand-by machine provides the best possible insurance against costly shut-downs.

CP engineers will be glad to help you plan for maximum production at minimum cost . . . whether your problem is to make more efficient use of available labor, protect your production and guard your equipment investment with larger units or additional units, or rearrange present equipment for more efficient operation.

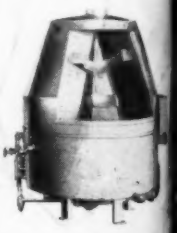
Creamery Package offers you the most complete line of dairy processing equipment, including refrigerating machinery . . . backed by over 60 years of specialized experience in the processing of dairy products.

Take advantage of this undivided responsibility and "know how" to make sure your plant is laid out and equipped to guard your profits today . . . and tomorrow.

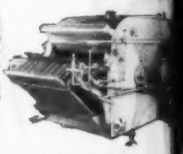


CP Weigh Can and Receiving Vat

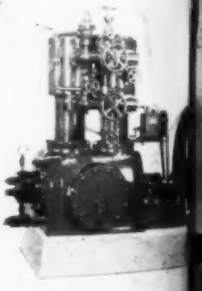
CP Cold-Hold Tanks



CP Rotary Can Washer



CP Bottle Washer



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